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ABSTRACT

There is mounting evidence that the programs and services essential to provide adequately for the educational needs of the nation will necessitate a broader and more demanding education structure than ever before. Specialists in many educational areas were asked to identify the characteristics of educational structure in relation to the achievement of established goals that would be essential to provide necessary and desirable programs. After having assessed the available research, reviewed the literature, and secured the empirical judgment of knowledgeable leaders and administrators in their respective fields of specialization, these specialists submitted 54 position papers to the Great Plains School District Organization Project. Fifteen of these papers have been reproduced in this publication. It is hoped that these contributions will be used as starting points for further study, analysis, and utilization by those who seek to develop a system of school organization that will make possible comprehensive and equitable educational opportunities for all children, particularly those in the State of Nebraska. A related document is EA 022 608. (Author)

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PLANNING FOR SCHOOL DISTRICT ORGANIZATION– SELECTED POSITION PAPERS

Position Papers
Prepared for
The Great Plains School District
Organization Project

A Four-State Project

The Great Plains School District Organization Project
411 South 13th Street
Lincoln, Nebraska
68508

June, 1968

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Edited by
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Project Director

Copies of this report are available in each of the Departments of Public Instruction in the participating states, Division of School District Organization.

THE GREAT PLAINS SCHOOL DISTRICT ORGANIZATION PROJECT

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FOREWORD

There is mounting evidence that the programs and services essential to provide adequately for the educational needs of the nation will necessitate a broader and more demanding educational structure than ever before in the history of our nation. It is not enough to recognize the need, and then to become serious about organizing to meet that need fifty years later, as was the case, for example, with vocational education. The rapidity of change, the explosion of scientific knowledge and the amazing adaption of such developments to the everyday life of the American citizens through technological know-how has revolutionized the educational needs to be met, the programs and services to be provided, and the organizational structure essential to provide the programs and services at a high level of excellence with efficiency and economy in operation.

Accordingly, the assistance and recommendations of specialists in many educational areas were sought in an effort to identify the characteristics of educational structure in relation to the achievement of established goals that would be essential to provide necessary and desirable programs. They were requested to assess available research, review the literature, and secure the empirical judgment of knowledgeable leaders and administrators in their respective fields of specialization. Fifty-four position papers were submitted for the use of the Project Staff and by personnel concerned with school district organization. Each one made a significant contribution to the objectives of the Project.

The papers have been used by the Project Staff in the development of the Guidelines for School District Organization. Many of them were presented at conferences in one or more of the member states and at four-state conferences on problems of educational structure. It is regretable that only a few can be reproduced in this publication for further study, analysis, and utilization by those who seek to develop a system of school district organization that will make possible comprehensive and equitable educational opportunities for all children wherever they may live in the state; and, for those who are concerned with the providing of these programs and services at a high degree of quality or excellence, and with efficiency in organization and economy in operation.

The members of the Steering Committee and the Project Director are grateful for the constructive and helpful efforts of the great numbers of people in all four states who have contributed to the Great Plains School District Organization Project. Their generous assistance and creative contributions have made the Project an enjoyable and productive undertaking for all who have been associated with it.

The Project Staff

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CHAPTER 1

EDUCATIONAL NEEDS—SOME CHANGING REALITIES

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Most everyone, it seems, believes in education. If they have but little of it themselves, they want more of it for their children. If they have a college education, they want a college education for their children. It is generally accepted that an "educated person" has opportunities for attaining the "good things" in life to a much greater degree than do those people, who, for various reasons, possess limited formal educational training. Many have not had the opportunity to acquire the knowledge, understandings, and skills essential for the providing of those elements of everyday living which make possible the enjoyment of that which, to them, constitutes the "good life." But they do want it for their children, and they will support the educational system which they believe will make these things possible for their boys and girls.

But the world about us is not the same as it was when we, the parents and the grandparents, were in school. In fact, the entire process of education has changed within the past quarter of a century. Twenty-five years ago there was a major emphasis in the schools throughout the country on teaching for the present, the status quo. Today increasing stress is being placed upon the preparation of the student to find his own individual and group security within an escalating process of change. Scientific discoveries and technological developments are making our childhood days unbelievably archaic and our tomorrows a realistic challenge to the fantacies of the most incitive mind. The world and our everyday life are changing so rapidly that many of the concepts, insights, knowledge, and understandings that give meaning and direction to many of today's activities will be outmoded in the next generation. The preparation and the conditioning of students for change is a primary challenge for education today. Perhaps it is the one greatest service that education can render youth in our time. Only as we find a personal and a social sense of security within the process of change will we and those who follow us be prepared to live most effectively in and to contribute efficaciously to the emerging world of tomorrow.

The reality of change is in evidence all around us. The implementation of this reality into the educational systems of our state and nation is less in evidence. But the process for this implementation has been established and the direction is becoming more clear. That direction is pointing toward more adequate school district organization. The educational needs of youth and adults are both the motive and the guide for this change in school district structure. It is the purpose of this chapter to attempt to identify some of the educational needs that must be met if people as individuals and as members of our society are to find that which to them is the "good life," both for today and for tomorrow, in a world of rapidly changing realities.

Needs as Guides for School District Organization

At one time the child learned a craft at his father's bench. This is still true in many of the developing countries of the world; but it is not true in a highly scientific and technologically advanced society such as exists in America today. The manner in which the educational structure has been established in our country over the years was determined by the kinds of needs to be met, or the purposes and objectives, established for the educational system.

Early in our history there was a felt need to possess the skills of reading and writing, and schools were established for this purpose. Nearly 150 years ago the need was felt for a free, public high school to provide training beyond the elementary level. With the turn of the century and following World War I there was a recognized need for training in vocational education subjects, particularly in agriculture and home economics. Later, greatly expanded needs for a trained manpower supply gave impetus to the establishment of vocational schools available to all youth and adults. The advent of Sputnik aroused the nation to the needs in science, mathematics, and foreign languages. In every instance, the needs of individuals, the needs of business and industry, the needs of the state and federal government for a highly trained, intelligent and skilled manpower supply gave direction for the kinds of educational programs deemed desirable to provide the desired labor, managerial, and professional force.

Just as the defining of the needs gave direction to the kinds of programs to be provided by the public schools of the states and nation, so have the educational programs given direction to the requirements essential for supporting them and making them possible. These requirements, whether they were staff personnel, classrooms, facilities, equipment, transportation, or business management, had value only to the degree that they provided the quantity of the programs at the desired level of quality for the number of students to be served. When the needs changed and programs became obsolete with the scientific and technological developments of the times, there was a corresponding change in the supporting services or requirements.

In a very similar manner, school district organization evolved as a structure to facilitate the educational process. Its primary purpose was to provide the programs and services necessary to meet the needs considered important by the people of the state and of the local school district. When the needs were seemingly best served by a one room, eight-grade school, this became both the administrative structure and attendance unit to meet those needs. As needs changed and a secondary education became an essential, an administrative structure was developed for cities and villages throughout the land which provided a high school education for all their children. The centralization of school districts became a necessity as more and more children enrolled in the schools, as job opportunities expanded and became more technical, as the raw labor force required more knowledge, more understanding, and more skills, and as the expanding programs to meet these expanding needs became more costly.

The above is descriptive of the developmental process which characterizes the history of education in our country. Educational needs determined the programs to be provided and the services required to support these programs. Needs, programs, and services have served as guides for the establishment of school districts to make the programs and services possible at a desirable level of quality for all youth and adults, with efficiency in organization and economy in operation. And as needs change in the future, so will it be necessary to re-examine the structure to meet these needs. School district organization is the structure for providing the programs and services to meet defined and accepted educational needs at the desired level of quality, with efficiency in the utilization of human and material resources, and with the economical expenditure of the taxpayer's dollar.

Who Defines Needs?

When the son learned the craft at his father's bench, the father defined the needs, outlined the program of training to be followed, and provided the tools and the facilities required for the learning process. As science and technology advanced, the educational process became more complex. The father no longer worked at his own bench, but on an assembly line or in a highly mechanized plant with others who possessed equal or equivalent ability and skill. In this age of specialization there was no place for the son by his father's side, except in very unique situations. The defining of and providing for educational needs was passed along to others, although the father continued to have an interest in giving direction to the educational opportunities that were to be provided for his son or daughter.

Who, then, defines the educational needs today? Is it the individual? Is it the family? Is it the community? Is it the state? Is it the nation? The answer should be: not one of these alone, but all of them together. There is sufficient evidence to support the fact that educational needs today are being defined at three governmental levels, and by three echelons of our society. These may be identified briefly as follows:

1. The federal government, in the interest of national defense and the general welfare.
2. The state government, with education as a constitutionally specified function and responsibility of the state.
3. The local school district, with the identification of local needs indigenous to that community or area.
4. The culture and society of which we are a part, for an understanding of the ideals of that society, and for an appreciative understanding of and contribution to the heritage of all its members.
5. Business and industry, for the welfare and economy of our society is dependent on the skills, attitudes, habits, and values held by both labor and management.

6. The individual, for education must be meaningful and have relevancy to the student.

The educational system of today must meet the needs defined by all six of the above categories. Furthermore, each one has an obligation to understand and to assist in meeting the needs as defined by each one of the others.

In this era of specialization, in a period of complex social and economic problems, in a time of national and international tensions, in this age of both hot and cold wars, we, the people, must learn to accept our dependence on one another. Especially, we must acknowledge and accept the fact that we are an interdependent people. A local community cannot deny the educational needs which must be met for national security; neither can it deny the problems to be resolved for the general welfare in the meeting of the educational needs of any segment of our society. At the same time the federal government must understand and relate to the educational needs as defined at the local level. The age of specialization, the complexity of our scientific and technological developments, the pressures of confinement in an urbanized society, the emerging characteristics of a people in a process of change from one way of life to another make of us a totally interdependent people. This, in itself, is the challenge to education, and to a recognition and acceptance of the educational needs for each segment of an interdependent society.

Educational Needs From a National Perspective

Education has suddenly achieved a pre-eminent place in the thinking and action of the nation's leaders. Although always interested in education, the federal government has only recently accepted education as an instrument to help eradicate poverty, to build defense, to lower unemployment, to promote economic growth, to improve international relations, and to advance technology.

Educational needs from the national perspective may be identified by the programs for which there has been a major flow of federal money. This flow took on major significance with the shock of Sputnik I in 1958. The immediate passage of the National Defense Education Act brought into sharp focus a national concept of educational needs to be met through curriculum areas considered to be vital to national defense—science, mathematics, foreign languages, and counseling.

A new emphasis was to be noted in the passage of the Economic Opportunity Act of 1963, the Elementary and Secondary Act of 1965, and the Vocational Education Acts of 1963 and 1965. After three years of operation, the Head Start program provides for the organization of the parents of enrolled children, the progam of dental and medical examinations, and the preschool development of the economically deprived child. The goals of the 1965 ESEA called for (1) the preparing of economically deprived children to take their place in the mainstream of American life; (2) the improvement of school libraries; (3) meeting needs in the areas of special education; (4) the encouragement of innovation and pilot educational programs; (5) the establishment of regional laboratories; and (6) the strengthening of state departments of education.

Vocational education has been of major concern to the federal government since the passage of the 1867 Act which brought the state agricultural and mechanical colleges into existence. The Smith-Hughes Act of 1917 brought the federal government into a supporting position for vocational training at the secondary level. This interest was continued and expanded, and in 1963 the report of the President's Committee resulted in a significant increase in funds for greatly expanded vocational education programs and facilities.

Educational needs from a national perspective are significant for:

1. The training of the youth of the country for national defense. This includes programs in science, mathematics, foreign language, vocational education, special education, and others.
2. The equalization of educational opportunity for the economically and culturally deprived in the interests of the general welfare. This includes the Head Start Program, the Job Corps, and related programs.
3. The improvement of the quality of education for all through research and development, educational innovation, and program development.
4. Meeting the emerging needs for a higher quality of education, including (a) improved education for the culturally disadvantaged; the mentally, physically, and emotionally handicapped; and the gifted; (b) preschool and primary education; (c) improvements in general education; (d) greatly strengthened vocational education; and (e) improved quality of community colleges.
5. Better research and development efforts to improve quality in education.

Educational Needs From a State Perspective

Education is a function of the state. The state, therefore, has the primary responsibility either for identifying the needs to be met through the educational process, or for providing for the manner in which these needs shall be identified and directed toward program development.

Balance is an important ingredient in the identification and determination of needs to be met by the public school system. If balance is to be achieved in the identification of needs, then recognition must be given to the six areas identified previously under the subtitle, "Who Defines Needs?" The state, in the fulfillment of its constitutional obligation for education, cannot sidestep this responsibility by passing it along to the local school district. Neither can it, in fairness to all citizens, determine these needs at the state level, or permit them to be directed and controlled from the federal level. Overemphasis in need and program determination by any one level or by any combination thereof, except as a whole, will not be in the best interests of the people, the state, the nation, and, most of all, the youth and adults enrolled in the public schools.

Recognize National Needs

State and local educational leaders must recognize that there are educational needs to be identified at the federal level; these must be accepted and supported at the state and local governmental levels. The survival of the American nation within a world in conflict, the perpetuation and improvement of the American way of life, the future of our concept of democracy as a form of government among the governments of the world—all these are matters of national concern. They are the responsibility of all people at all levels—the federal, the state, and the local. The national needs must be recognized; and these needs must be incorporated within and become a part of the needs to be recognized, accepted, and supported at each echelon of the state educational system.

State Needs

The state is dependent upon an enlightened citizenry capable of exercising judgment and wisdom in the performance of the rights and privileges of citizenship. The welfare of the state is strong to the extent that local business, industry, and the economic status of its communities are strong. The state must guarantee to each and every individual the opportunity to become knowledgeable, to possess the skills, to develop those personal characteristics which will enable him to become a contributing and productive member of his community, of the state, and of the nation, thereby fulfilling the leadership function of the state for education.

Needs at the Local Administrative Level

The citizens of a local administrative school district have a responsibility to understand and to analyze educational needs, and to generally adopt a program which will satisfy those needs that have been identified at the national and state levels. But, in addition to these, there exist needs and problems which are peculiar to each community. A local industry may have job entry requirements that exist only within that part of the state. There may be an economically deprived or culturally limited area for which special needs must be identified and programs developed to erase the stains of blight on a potentially productive and economically independent citizenry. Wherever such variations in needs may be within a state, they must be identified, and a program to meet such needs should be accepted and supported at the state level for implementation by the local administrative district.

Needs of Society

The greatness of any culture or of any people emerges from the value system, the ways of life, and the meaning of life as experienced by those who contributed to its development. The heritage of one generation is built upon, added to, and—hopefully—improved for the next generation. But the meaning and values of today's system takes on significance to the degree that there exists an appreciative understanding of the basis upon which the forefathers established that society. With this understanding, and with the new meaning and values which emerge with each generation, the foundation is thereby established for posterity. Each generation of parents wants his children to have this appreciative understanding of the heritage which was theirs. Also, there are elements that each generation wants to pass on to succeeding generations. Such an understanding takes the best from the past, adds to it the insights, understanding and appreciations of the present, and seeks new goals, new directions, and new meanings for the future. It is a process through which each individual must go. He salutes that which has gone before; he takes off his coat and rolls up his sleeves for the future, as he works diligently and forthrightly on the problems and issues of the present. Society has needs to be met in the public school system of our country.

Labor, Business, Industry

The economy, the welfare, and the security of the nation is dependent upon the strength and the qualifications of the labor and managerial force. This includes those at the professional and engineering levels, paraprofessional personnel in support to the engineers, qualified workers in the skilled and semi-skilled occupations, unskilled laborers, and a great variety of personnel in all of the service occupations.

The security of the nation is dependent upon the ability, the quality, and the cooperative working relationships within and between all of these various classifications. The strength of our economy, both within the nation and among the nations of the world, is likewise directly related to and dependent upon an adequate supply of qualified manpower.

The basic background and general preparation of this manpower is a responsibility of public education. It is obvious that there is a need for a literate populace, possessing salable skills, habits, attitudes, and personal characteristics for utilization in constructive and productive ways. These kinds of needs to be met by the public schools have repeatedly been emphasized by state and national organizations of labor, business, and industry.

The advancement of scientific knowledge and technological know-how has revolutionized the training requirements for job entry and for job security. This is indicated when one company reports[1] (and many others could do the same) that sixty-seven percent of their products have been on the market less than five years, and that forty-two percent have been on the market two years or less. Job retraining is an essential in today's mechanized and computerized economy.

One group of industrial representatives defined with the writer the following general needs to be met at the elementary and secondary school levels in preparation for entry into the labor force:[2]

1. More depth in the three R's.

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[1] *Annual Report, 1967* (The Ampex Corporation, 401 Broadway, Reswood City, California, Chart 3, page 4.

[2] The Ohio Manufacturer sAssociation, Columbus, Ohio. October, 1966.

2. The development of an attitude for excellence (a job performed to the best of the student's ability).
3. Training and experience in the use of knowledge and information.
4. Development of the ability to think through problem situations, including the utilization and adaptation of acquired knowledge and information.
5. Development of the basic requirements for productive work: good habits, good attitudes, punctuality, ability to finish a task undertaken, working up to his capacity.
6. Development of a spirit of self-confidence, and a faith and belief in oneself as an individual, and as a person in working with others.
7. Development of a respect for the rights and privileges of others.
8. The development and implementation of a plan whereby educators listen to what business, industry, and labor identify as being important, and to their identification of the needs.

It was stressed by these representatives of business and industry that habits and attitudes generated and developed in the public schools carry over into the adult work life. Teachers and administrators prepare the students for productivity or non-productivity in business and industry by the standards which they help the prospective worker to establish and to maintain as a student in the public schools.

The Individual

Educational opportunities can be provided in the most optimum way with highly qualified teachers, excellent facilities and equipment, and a broad program offering. However, unless these opportunities "make sense" to the student as an individual, they will not be productive in helping him to profit from them. Education must have merit in terms of the values, insights, desires, and needs of each individual student. Of course, some pupils will accept and adopt educational purposes and objectives as defined and recommended by their parents, their teachers, and by society. Some will reject adult conceived needs, and the educational opportunities tend to become meaningless to the degree that adult determined educational programs differ from the pupils' own personal concept of values and needs.

Some students will accept long-term educational objectives, while others are significantly impressd with only the urgency of the present. In particular circumstances these needs, for some students, are basically a few dollars in the pocket and a 1960 car. Although these needs are essential to the satisfying of other needs, drives, and purposes, they do tend to become all-impelling for many youth and adults. In some homes, the parents will provide these self-determined "basic essentials," while others have little or no hope of such attainment, except as they employ a means to attain them which is not acceptable to society.

This does not imply that it is the responsibility of the public schools to provide the dollars and the car. It does mean that parents, educators, and the general public must accept the fact that all youth, regardless of where they live and regardless of their socioeconomic status, have needs which are important to them, and which tend to motivate and to direct their activities and their lives. In some communities it may be desirable to develop programs or opportunities wherein some of these basic drives can be met, programs not presently conceived as being within the framework of public education. However, if such needs can be met through specially designed work programs, it is possible that a major contribution might be made to the students' personal self-adjustment and to the society of which they are a part. Certainly this would be preferable to expending huge sums of money in welfare, in juvenile delinquency programs, and in crime prevention and/or control.

On the positive side, there are those students who have made a personal adjustment to their families, to their community, and to their educational opportunities. But even with this group, the educational program must be meaningful to them if it is to be effective. This is true for those who will terminate their formal education at the twelfth grade as well as for those who will continue through college; for those who pursue training for a skilled vocation or for managerial occupation, or for one of the professions.

Also, there are those students who have special needs. These include those with physical disabilities, emotional disturbances, the neurologically impaired, the slow learning, and others. Their needs are very real, both to them, to their parents, and to the citizens of the community. These kinds of needs must be recognized and identified, and appropriate programs must be initiated to fulfill them.

In summary, it may be said that educational needs have value to the degree that they have significant and realistic meaning to the student; and that the needs as seen and interpreted by the student must become a part of the needs to be met by the public school system.

Ten Clues to Need Identification

The identification of the individual, the group, or the agency that determines needs, as discussed above, is suggestive of some of the kinds of needs to be met by the public schools. But this determination is not limited to any one area, such as vocational education for national defense. In most cases it is equally applicable to two or more of the six levels involved in need determination. For example, some of the needs as identified at the national level have equal significance and importance at the state and local levels. Likewise, business and industry, our society as a whole, and individual youths and adults want and need vocational training opportunities. It is for this reason that there has been general acceptance of federally supported programs. Keys to the fact that there are common needs at all levels is suggested in the following list of ten clues to need identification.

1. *The mobility of the population.*

Great mobility has always been a characteristic of the American populace, even in the first years of settlement. Then came the movement west, and now the movement to the cities. Families move, and youth move. It is accepted that from three to nine out of ten youth leave the area in which they grew up to seek job opportunities in urban areas, and if reared in an urban area they move to other urban areas. This means that young people are in immediate competition for job placement with the graduates of high schools all over the nation. The breadth and quality of their educational opportunities will directly affect their potential either for immediate job placement, or for the level and quality of the job opportunity, or for both. For adults, the mobility immediately brings into sharp focus the need for job training and/or job retraining.

2. *The process of urbanization.*

The transition from a rural to an urban population has brought about many problems of adjustment and adaptation. The in-migrants often are not prepared for compact living conditions, or for employment upon arrival in the city. Maladjustment, frustration, dependence on welfare, and lack of opportunity for either social or economic independence become breeders of those ills which are increasingly undermining and plaguing our society in the core cities. The process of urbanization gives direction to a whole new set of needs to be met by the public schools of the nation.

3. *Cultural and economic deprivation.*

Cultural and economic deprivation is not limted to the developing countries of the world. It exists within this country, the most affluent nation in modern history. It is not limited to any one part of the nation, nor is it limited to urban or to rural sections. It is an inherent part of each and every community. The extent, the nature, and the degree of cultural and economic deprivation establishes the basis for and determines many kinds of educational needs.

4 . *Scientific discoveries and technological development.*

The affluence of our society, the advancement of our socioeconomic structure, and the leadership of our nation among nations are directly related to scientific exploration and technological development. It requires the development of a mind which will inquire into the nature, structure, and relationships of all things, which can translate this knowledge into practical and useful products, tools, and services for the benefit of mankind. The continuing advancement in science and technology is directly dependent upon the quality and excellence of the total educational endeavor.

5. *An age of specialization.*

The era of science and technology has brought with it vocational specialization. Managerial and skilled levels have become so highly developed that there exists areas of specialization within highly specialized occupations. With the passing of the agricultural era, with the present highly developed industrial era, and with the developing electronic, computerized space age, the human resources era is about to emerge as the most dynamic and significant force within modern times. It is a product of highly developed and specialized training programs, research efforts, and developmental activities at all levels of the intellectual, business, and industrial world. The patterns of education to meet the needs of this explosion of knowledge and know-how must take cognizance of the age of specialization.

6. *The emerging world of work.*

Science, technology, and the age of specialization have united in providing countless new job opportunities, with new and significant needs to be fulfilled for a progressively complex and selective world of work. The security of the nation and the socioeconomic welfare of the people is dependent up an educational structure which will meet the basic vocational training needs of all citizens.

7. *Breadth of vocational opportunities.*

The broadening of the world of work within the past half century has brought with it a demand for an almost limitless variety of skills, knowledge, and abilities on the part of the total labor force. The breadth of the demands created by emerging job opportunities presents a significant challenge to education. First is the need to provide the basic elements for successful job performance; and, second, the need to ensure sufficient specialization, without being overly technical, and for successful adaptation to on-the-job requirements.

8. *Interdependence.*

The matrix of our society, the complexity of our economy, and the high degree of specialization have produced a highly interdependent citizenry, both socially and economically. This interdependence has many varied facets, including significant implications for all communities, the state, the nation, and the world. It has resulted in a society and an economy which are interdependent. The implications of needs to be met through education is most vital and significant for the development of respect for all peoples, for the cultivation of the habits and attitudes essential if all people of all races and creeds are to work and live together harmoniously, the one being dependent upon and supportive to the other.

9. *The process of change.*

The first eight clues to need identification highlight one underlying and fundamental characteristic inherent in each and all of them—the process of change. The *status quo*, if it ever existed, was yesterday; the process of change is today. It brings with it a mobile people seeking self-identification in a new and emerging urban environment, and seeking employment in a rapidly adjusting labor structure. A major need exists for the preparation of youth and adults to find their personal and social sense of security and accomplishment within the process of change itself.

10. *Value system.*

Educational needs emerge in relation to the value system of individuals and of a people. School buildings and school programs are representative of the value system of the communities of which they are a part. Values for and concerning education give direction to decision-making about education in terms of programs, services, buildings, and tax support.

The foregoing ten clues to need identification depict some of the basic conditions to be met by the public schools of the state and nation. They are suggestive of the needs to be identified, which, in turn, become the directing force for the determination of the kinds of programs and services to be provided by the public schools in the interests of the nation, the state, the local administrative district, society in general, business and industry, and the individual student.

Needs as Educational Goals

Some writers suggest that three-fourths of the knowledge now possessed by man was not known at the close of World War II. Also, present knowledge is expected to double within the next decade. If the acquisition of actual data and specific knowledge were the primary objectives of education, each student's storehouse of such knowledge and information would become obsolete at an unbelieveable rate. What, then, is the purpose of education? What are the real and vital needs? What are the implications for those who define the needs in an era of escalating change?

Public school programs are becoming increasingly less concerned with specific bits of information. Need identification is being directed more and more toward the development of an individual who can cope rationally, intelligently and constructively with problems and issues, utilizing knowledge and information as background support for decision-making and directed action.

Needs, *per se*, are commonly expressed as educational purposes or objectives. They constitute goals to be achieved, with the term 'goal" being used interchangeably with such words as objective, purpose, aim, or a universal continuing purpose. For the purposes of this study, "goals" may be looked upon as a long-term purpose, while "objectives" refer to targets with certain limitations or more definable circumscriptions. For example, the goal may be vocational competence, while the objective in the teaching process is the acquisition by the student of the necessary skills that lead to vocational competence.

The assessment of circumstances, the identification of needs, and the continuing redefinition of goals for education has been a part of the whole process of socioeconomic and cultural progress since the days of the Latin grammar school and the Dame school in early Colonial life. Countless authors, commissions, and associations have defined and redefined the purposes of education. Each statement has been an expression of needs to be met by the public schools. The more serious efforts in this direction began with the report of the Committee of Ten in 1893, followed by the well publicized seven cardinal principles proposed by the Commission on Reorganization of Secondary Education in 1917. One of the more recent efforts appears in a publication by the American Association of School Administrators entitled, *Imperatives in Education.*[3] Nine chapters were devoted to the defining and interpreting the imperatives as:

1. To make urban life rewarding and satisfying.
2. To prepare people for the world of work.
3. To discover and nurture creative talent.
4. To strengthen the moral fabric of society.
5. To deal constructively with psychological tensions.
6. To keep democracy working.
7. To make intelligent use of natural resources.
8. To make the best use of leisure time.
9. To work with other peoples of the world for human betterment.

Another very descriptive analysis of educational goals was reported by a subcommittee of the Governor's Committee on Public School Education in Texas.[4] The persistent goals of education from the Latin Grammar School in 1635 to the present time were identified and given expression in a statement of suggested goals for public education in Texas. These included the following:

1. Intellectual discipline.
2. Economic and vocational competence.
3. Citizenship and civic responsibility.
4. Competence in human and social relations.
5. Moral and ethical values.
6. Self-realization and mental and physical health.

The following interpretation of needs to be met by the public schools is suggested as a basis for further study and identification by those concerned with giving direction to educational planning, structure, and organization. They are illustrative of some of the needs which should give direction for the selection and development of the programs and services to be provided by school district organization today and in the foreseeable future.

EDUCATIONAL NEEDS

1. The need to acquire knowledge and understanding
   - —of themselves.
   - —of themselves in relation to others.
   - —of the socioeconomic world about them.
   - —of our culture, our way of life.
   - —of our culture in relation to the way of life of many people and many cultures.

   Related programs include, but are not limited to: literature, social studies, history, science, humanities, etc.

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[3] *Imperatives in Education* (American Association of School Administrators, Washington, D.C., 1966).

[4] *Goals for Public Education in Texas,* A Report by the Subcommittee on Goals to the Governor's Committee on Public School Education, Austin, Texas, November 7, 1966.

2. The need to develop skills
   - —as a means of acquiring knowledge and understanding.
   - —as a means for economic survival—salable skills, intellectual or manual or both.

   Related programs include, but are not limited to: reading, mathematics, science, vocational education, etc.
3. The need to develop a sense of values which become basic to individual and group beliefs; beliefs, based upon values, which give meaning and direction to:
   - a. Knowledge to be acquired.
   - b. Skills to be developed.
   - c. The application and utilization of knowledge and skills that contribute to making life meaningful, constructive, and productive within our culture and value system.
4. The need to acquire and/or to develop the knowledge, understanding, beliefs, and values essential to learning how to live, to work and to play with others

   —first, with himself, then with his parents, his playmates, and his neighbors; with people in his community, in the state, in the nation; and, with all peoples of the world.
5. The need to develop the ability to think clearly, to analyze critically, to evaluate constructively, and relate ideas to reality. Emphasis is placed on (1) skill acquisition (reading, mathematics, vocational education, etc.) ; (2) subject matter (literature, social studies, etc.) ; (3) conceptual and process-oriented studies (data collecting, estimating, problem solving) ; and (4) the interrelating and coordination of each of the above for meaningful educational experiences related to the life experiences of the individual. It must be emphasized that the above does not purport to continue the historical separateness of specific content areas. It is used in this context only for illustrative purposes within a generally understood and accepted organizational framework. New and significant research data are pointing toward the interrelated and integrated aspects of knowledge as opposed to fragmentation through segmentation.
6. The need to develop, maintain and promote good physical, mental and emotional health; to correct and to improve physical and mental defects and/or limitations.
7. The need to develop the potential of each and every pupil to the highest level of performance possible for that individual pupil.

Needs and School District Organization

It must be emphasized again that the only purpose and function of structure in education, or school district organization, is to provide programs and services essential for meeting the identified educational needs of all people at an acceptable level of quality or excellence, with efficiency in organization and economy of operation. Needs give direction to programs. Programs require certain kinds of services to support them. It is the responsibility of the structural organization to provide both programs and services in order to fulfill the need requirements. As needs change, so do programs and services. As programs and services change in relation to the changing needs, so should the structural organization. Needs come first; school district organization is in a supporting position only.

Summary Statement

The defined and accepted needs to be met by the public schools give direction to programs, services, and structural organizations which fulfill the needs. Needs, as defined at the local, state, and federal levels of government, by society, by business and industry, and by the individual students, are inextricably interrelated. The ten clues to need identification are descriptive of the basic concerns upon which needs are defined by the six areas listed above, and give direction to the identification of needs as the objectives of education. From these identified needs, as accepted and adopted by decision-making personnel at the local, state, and national levels, will evolve the necessary structure for the organization of school districts in the foreseeable future.

CHAPTER 2

DEMOGRAPHIC CHANGE AND SCHOOL DISTRICT ORGANIZATION

Ellis G. Hanson
Project Director—Iowa

For the past eighteen months four states within the Great Plains area have been engaged in a cooperative interstate project designed to strengthen state department leadership in the area of school district organization. The Great Plains School District Organization Project, funded with a Title V, Section 505 grant from the U. S. Office of Education, has been the vehicle for the states of Iowa, Missouri, Nebraska, and South Dakota to study comprehensively their present organizational structure. The Project has proceeded through three distinct phases. The initial phase was devoted to an analysis of the strengths, weaknesses, and limitations of the present operationalized structural organization within each state. The second phase has focused attention on the identification of educational needs that must be provided for within each state's system of education. The final phase, scheduled for completion in June, 1968, will come to grips with the desirable allocation of programs and services to meet the identified educational needs within a recommended structural pattern for each of the four states. Hopefully, the most significant contribution of the Project will be the identification of "Criteria and Guidelines for School District Organization" in the Midwest.

The following summarizes one of the Project publications recently completed by the author of this article. *People, Places, Perspectives: The Great Plains States,* was concerned with demographic characteristics of the Midwest and their implications for educational planners.

The basis of all educational endeavors is people. The present and anticipated composition and distribution of a state's total population should have a profound effect on describing desirable organizational patterns to enhance development of the state education system. Yet, we have adequate empirical evidence to suggest that the evolutionary patterns of school district organization have displayed in the past, and presently show little relationship to changing demographic characteristics. In another study recently completed by this writer,* an assessment was made to determine the impact selected demographic variables had exercised on the changing pattern of local school district organization in Iowa, Missouri, Nebraska, and South Dakota. When changes which had occurred between 1940 and 1960 in a series of demographic variables were compared with changes that had occurred in types of school organizations within 364 counties and 54 economic areas of the four states, there were no high positive relationships (correlation coefficients of +.50 or more). The study proved quite conclusively the changing organizational pattern of school districts had not been related to major demographic changes occurring since 1940. The present minimum size criteria employed by state education agencies in the Midwest fail to recognize the changing composition and distribution of population in delineating school communities.

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*Hanson, Ellis G., "Impact of Demographic Change on Local School District Organization in Iowa, Missouri, Nebraska and South Dakota" (unpublished Ph.D. Thesis, Ames, Iowa, Library, Iowa State University, 1967).

NATIONAL PRODUCTION TRENDS

The American society has matured from infancy into the sophisticated and complex structure we see today. Social scientists have attempted to identify specific periods in this evolution with varying degrees of success. The development described by the Socio-Economic Group of the Battelle Memorial Institute is indicative of most such attempts. They have described the evolution in terms of three specific periods: The Agricultural Era, the Manufacturing Era, and the Human Resources Era.

The Agricultural Era, extending from the nation's early settlement period to the opening of the frontiers, was characterized by the majority of people earning their livelihood from agricultural endeavors.

The Manufacturing Era, following the Industrial Revolution in the mid-nineteenth century, has ensued in the United States for the past five to six decades. It is best characterized by massive development of manufacturing and related activities and the consequent shift of the labor force from agrarian endeavors to manufacturing activities.

The emerging Human Resources Era will provide man his employment through intellectual endeavors rather than the former transformation of natural resources to useful products.

A number of identifiable national population trends have real significance for educational planners. Among the most consequential of these are the following:

1. The total U. S. population is expected to increase but at a declining rate. The population doubled five times between 1790 and 1950, three times between 1790 and 1965 at intervals of 25 years, once in the 35 year period from 1865 to 1900, and once in the 50 year period from 1900 to 1950. The total population was estimated at 200 million in 1966 and is expected to exceed 300 million by the turn of the century. Though absolute numbers are large, the percent of increase in the next 34 year period will be approximately 50 percent.
2. Major redistribution of the labor force within occupational categories is expected to continue. In 1900, over 71 percent of the total U. S. labor force was engaged in agricultural occupations. The application of scientific technology and automation has reduced this

figure to approximately 7 percent today. Leading agricultural economists predict that by 1975 only four percent of the total population will be engaged in agricultural occupations.

Consistent with the emergence of the Human Resources Era will be the sizable increase in white collar and blue collar occupations. Over half of total employment by 1975 is expected to be in white collar occupations.

3. Uneven regional distribution is expected to continue. Since 1950, 43 percent of the total U. S. population increase has been accounted for by increases in five states: California, New York, Florida, Texas and Ohio. During the period 1950-1965 the greatest increases percentage-wise were recorded in four broad geographic areas. Population growth is expected to continue at a higher rate in the following areas:
   a. The far West and Southwest.
   b. The gulf coast area: Texas to Florida.
   c. The Great Lakes Area: Milwaukee to Buffalo.
   d. The Eastern Metropolitan Complex: Boston to Charlotte, North Carolina.
4. The rural-urban distributions are expected to become more diverse. In 1790 when the first census was taken, only 5 percent of the nation's population was located in 24 urban places. (An urban place is defined as an incorporated place with a population in excess of 2,500.) Some of the most reliable projections presently available suggest that by 1980 approximately 70 percent of the total U. S. population will be residing in urban places.
5. Continued redistribution within urban complexes is expected to continue. Since 1950 most central cities of urban complexes have recorded stable or declining populations. The major increases in urban populations are manifested in increased suburban concentrations. In 1965 it was estimated that 52 percent of the urban population was located in areas outside central cities. This trend is expected to continue and may reach 60 percent by 1980.
6. The racial imbalance in metropolitan complexes is expected to expand unless major social changes are initiated. The high rate of in-migration of non-whites to the central cities and out-migration of whites to the suburbs may be expected to continue. In 1960 approximately 95 percent of the Negroes residing in the North and West sections of the United States lived in urban places, chiefly in the central cities. With the increased migration of the Negro from the South to the North and West, begun in the early 1950's, increased concentrations in central cities may be expected.
7. Within the general population, there are indications of some major changes in the age composition. From an average age of 16 years in 1800, the American society had matured to an average age of 30.2 years in 1950. Since 1950 the average age has been declining and we

see today an average age estimated at 27.2 years. Table 1 presents the projected national increases by age groups for the period 1965-1980. They present some startling data when compared with the period 1950-1965.

TABLE 1

National Population Increase by Age Groups

1965-1980

Age group	Increase (In millions)	Percent of increase
65 Years & Over	5.0	27%
35 – 64 Years	5.0	8%
18 – 34 Years	24.0	57%
14 – 17 Years	2.4	17%
5 – 13 Years	4.0	11%

During the previous fifteen year period the age group 14-17 had increased 67 percent and the age group 5-13 had increased 61 percent. The projections of 17 percent and 11 percent respectively for these periods reflects the great impact birth control practices are expected to have on the total population.

THE DIMENSION OF CHANGE
THE GREAT PLAINS STATES

Population changes since 1900 have greatly redistributed the Midwest population. Massive migration, both within states and out of the states, best characterizes the pattern of movement. Migration is essentially a social response to change. It is a product of the changing capacities in the agricultural system and the attractions and opportunities in the urban-industrial areas. As you will see later, it has resulted in the dismembering of many communities and the inordinate growth of others.

One result of this migratory movement has been the very sizable decline in populations of most geographic regions of the Midwest. It has contributed to the decline of associations and institutions and has been reflected in the area of economic activity, educational systems, governmental efforts, and in the basic values and purposes of social existence.

The Midwest population change has shattered the stability of communities and prompts one to question seriously the adequacy of existing social institutions to cope with changing needs and demands.

Iowa, Missouri, Nebraska, and South Dakota present today a population distribution substantially different from that found in 1900. From predominately rural population, three of the four states, South Dakota being the exception, have moved to majority urban populations. Causes of this change are numerous and complex, but it is possible to establish certain broad categories of change which help to explain the shifts.

Population responds to changes in the economy, to the level of technology, and to the existing social organizations. Changes in population, in turn, tend to modify these changes.

Changes in farm technology are certainly responsible in part for the great changes in the Midwest. The expansion of contract farming and the interest presently being displayed by industrial concerns not previously engaged in farming will increase greatly the average size of the family farm. One example of this will suffice. In 1967, Deere and Company, a large Midwest holding company with sales of $30,000,000 in petroleum, women's clothing, printing, film distribution, and magazine and paperback book distribution entered the farming field. In one year they exchanged stock in one subsidiary for 10,000 acres of farm land, intend to own or lease 20,000 acres by the end of 1967, and 80,000 acres within five years. Concern for this movement is so intense the South Dakota Legislature is presently considering a measure which would curtail this type of operation.

Another element of the economy, the trade patterns of communities, has also altered. With rapid expansion and improvement of transportation, the small rural village is no longer required to provide goods and services to the declining rural populace. We may reasonably expect increased concentrations of the area population along interstate highways spanning all four states. This linear, or strip city configuration, is presently discernible in five areas of the Midwest. They are: (1) Sioux Falls, S. D., to Joplin, Missouri, through Sioux City, Omaha and Kansas City; (2) Dubuque, Iowa, to Cape Girardeaux, Missouri, through Davenport and St. Louis; (3) Omaha through Lincoln to Grand Island; (4) Davenport through Des Moines to Council Bluffs; and (5) St. Louis through Columbia, Jefferson City to Kansas City.

Midwest Growth Patterns

With the exception of a two decade period, 1930-1950, each of the four states involved in this study has experienced population increases. Since 1920, the rate of increase has remained consistent in Iowa and Missouri but has fluctuated considerably in Nebraska and South Dakota. The latter two encountered 4.5 and 7.2 percent declines respectively during the 1930-1940 decade. They made very slight recoveries with 0.7 and 1.5 percent increases respectively in the 1940-1950 decade and have approximated the rate of increase of Iowa and Missouri since that period.

Even though overall population has increased, the rate of increase has been substantially below the national rate of increase. The total population of the four state area in 1960 was 9,169,194, or only 5.11 percent of the total U. S. population. This represented a decrease of .54 percent of the total U. S. population in the period 1950-1960. Estimates available in July, 1966, indicate the area population has increased to 9,442,000. This, however, represents only 4.82 percent of the total U. S. population, or a further decline of .29 percent during the most recent six year period.

Area Distribution

The ability to establish and maintain social institutions is enhanced by the uniform distribution of population. The topography, climatic conditions, natural resources, and the resulting patterns of industrial development have contributed to extremely inequitable distribution of the population in most Midwest states. The density ranges from a high of 12,296 per square mile in St. Louis City to lows of less than one per square mile in some counties of Nebraska and South Dakota. In 1960 the average density (people per square mile) of each state was: Iowa, 49; Missouri, 63; Nebraska, 18; and South Dakota, 9.

Rural-Urban Distributions

One of the most significant aspects of the demographic changes presently taking place within the Great Plains area is the dramatic increase being recorded in the population of urban centers, and the parallel decline in rural areas.

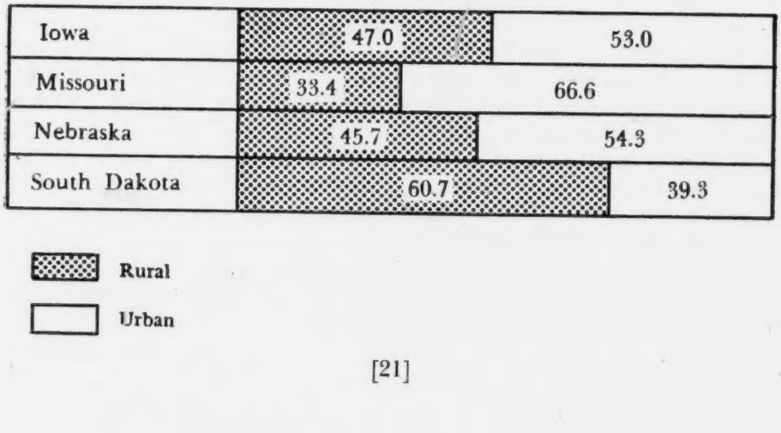
In the 1950-1960 period all four states recorded very substantial gains in urban population. Table 2 indicates that urban increases in each of the four states offset rural declines and resulted in general population increases of 5.2 percent in Iowa, 9.2 percent in Missouri, 6.5 percent in Nebraska, and 4.3 percent in South Dakota.

TABLE 2
Percent of Population Change, Rural-Urban
Great Plains States, 1950-1960

State	Percent of change Urban	Rural	Total
Iowa	+16.9	–5.5	+5.2
Missouri	+18.2	–5.2	+9.2
Nebraska	+23.2	–8.3	+6.5
South Dakota	+23.3	–5.2	+4.3

Table 3 indicates the present range of rural-urban composition in the four states. It ranges from a high of 66.6 percent of Missouri's population residing in urban areas to only 39.3 percent in South Dakota.

TABLE 3
Rural-Urban Distribution
Great Plains States, 1960



Since 1950 over three-fourths of all population growth in the four states has been recorded in thirteen Standard Metropolitan Statistical areas. In 1960, 33 percent of Iowa's population was concentrated in six urban areas (Cedar Rapids, Davenport, Des Moines, Dubuque, Sioux City, Waterloo); 57 percent of Missouri's population was concentrated in St. Louis, Kansas City, St. Joseph, and Springfield; 37 percent of Nebraska's population was located in Lincoln and Omaha; and 12 percent of South Dakota's population was centered in Sioux Falls.

Since 1960, this pattern of urban concentration has continued at an accelerated pace. Most communities with populations of 2,500 or more reflect stability or some growth; but the greatest increases percentage-wise are being recorded in the already larger cities, especially those with populations in excess of 25,000.

Migratory Patterns

A general pattern of substantial out-migration began in the Great Plains during the 1940's and has continued unabated. All but six of Iowa's 99 counties experienced out-migration. The six counties that reported in-migration are urban centers with 50,000 or more population or are adjacent to such counties.

All but eighteen of Missouri's 115 counties displayed out-migration. The eighteen that reported in-migration are within metropolitan complexes, are developing recreational areas in central Missouri, are major governmental centers, or are the locations of major colleges and universities.

Only five of Nebraska's 92 counties reported in-migration. Four of these are located in the Omaha-Lincoln complex. The remaining one, Kimball County in western Nebraska reported a substantial in-migration during the 1950-1960 period because of oil developments. Since 1960 there has been a reduction in the rate of in-migration, though it has continued higher than in most areas of Nebraska.

Only four areas of South Dakota reflected growth. The Minehaha County area reported in-migration as a result of the Sioux Falls development. The central South Dakota growth in Stanley and Hughes Counties was a result of federal dam construction. Since completion of these federal projects, there has been a very substantial out-migration in Stanley County but some degree of stability is evidenced in Hughes County as a result of increasing governmental employment in the state capitol of Pierre. Pennington and Meade counties reported in-migration as a result of federal missile developments in the area. Since withdrawal of these projects in the early 1960's a sizable out-migration has been recorded in Meade County. Expanding recreational developments and the continued operation of the Ellsworth Air Force Base in Pennington County have stemmed, to a degree, the out-migration in this area.

With few exceptions, areas of already sparse population have recorded the greatest rate of out-migration and the already densely populated areas have recorded the greatest rate of in-migration.

Further analysis of the migratory patterns indicate that the overwhelming percentage of those moving from the four states come from the white population and are in the very vital 18 to 44 age group.

White-Non-White Distribution

During the same period three of the four states reported substantial in-migration of non-whites, mostly Negroes moving into the urban centers of Omaha, Council Bluffs, Lincoln, Kansas City, St. Louis and Des Moines. The increase was approximately 12 percent in Iowa, 9 percent in Missouri, and 17 percent in Nebraska. Though these percentages appear large, they represent a relatively small proportion of the total state populations, as indicated in Table 4.

TABLE 4
Distribution of Population, White and Negro
Great Plains States, 1960

State	White	Negro	Total	% Negro	% Increase Negro population 1940–60
Iowa	2,728,709	25,354	2,754,063	.9%	34.2
Missouri	3,922,967	390,853	4,312,820	9.0%	37.5
Nebraska	1,374,764	29,262	1,404,026	2.08%	51.6
South Dakota	653,098	1,114	654,212	.17%	57.5

Live Birth Rates

The trend in live births in the area has paralleled closely the national pattern though the rate has been consistently lower than the national rate. From peak birth rates, reached early in the 1950's, the rates in each state began a gradual tapering off in the late 1950's and early 1960's. Since 1962 dramatic reductions have been noted in all states.

Table 5 indicates the live birth rates by states for the period 1960-1966. The shock wave of this massive decline was felt by schools across the Midwest when kindergarteners enrolled last fall. Census data available in State Departments of Education of the four states indicate sizable reductions in children in the 0 to 5 age categories.

TABLE 5
Live Birth Rates
Great Plains States, 1960-1966
(Per 1,000 Population)

State	1960	1963	1964	1965	1966
Iowa	23.3	20.8	20.4	18.4	17.7
Missouri	22.7	20.9	21.1	18.7	18.0
Nebraska	24.3	22.4	21.9	18.6	17.5
South Dakota	25.9	22.7	21.9	19.5	17.9
United States	23.7	21.7	21.2	19.4	18.5

Changing Age Composition

Of great concern is a consideration of changes that have taken, and are presently taking place in the age distribution of the population. Several distinct trends were discernible in 1960 and have magnified since then. The percentage of the total population under 15 and over 65 years of age has increased substantially. At the same time, the percentage in the 25-45 age range has decreased markedly. This changing composition is a manifestation of variable live birth rates during the 1920-1950 period and increasing life expectancy.

As a result of this changing composition nationally, during the next fifteen year period the 65 and over age group is expected to increase by 27 percent, the 35-64 age group by only eight percent, the 18-34 group by an explosive 57 percent, the 14-17 age group by only 17 percent, and the 12 and below group by about 11 percent.

The four-state area increases will be similar to the national progression with two major exceptions. The percent of the population 65 and over, already larger than the national average, will increase even more unless there is an alteration in out-migration rates for this age group. In addition, continued out-migration is expected to affect the very vital 18-45 age groups most severely.

PERSPECTIVES FOR THE GREAT PLAINS AREA

When one views the chronology of population development and associates present discernible trends in the social, political, economic, and cultural spheres with the historical development, a similar pattern of future development emerges for the four Great Plains States included in this study.

General Population Growth

All four states are expected to record population increases in the period from 1968 to 1985 but the rate of growth will be substantially lower than the anticipated national rate of growth. While the increase for the United States is estimated at 18.3 percent for the period 1965-1985, the projected increases by states are: Iowa, 9.7 percent; Nebraska, 13.2 percent; Missouri, 9.1 percent; and South Dakota, 9.2 percent.

Considerable doubt exists regarding the reliability of the South Dakota projections. Since 1960 the state has lost population. Some economists and sociologists within the states suggest that unless some major industrial input is initiated the total state population will probably continue to decline into the 1980's.

Rural-Urban Distributions

With the increased application of technology and implementation of automation anticipated in agriculture, the rural population of the area will decrease further. By 1980, the rural-urban composition of Missouri may approach 25 percent rural, 75 percent urban. In Iowa and Nebraska, the composition may approach 35 percent rural and 65 percent urban. Because of the limited number of urban centers at the present time, and the consequent limited potential for growth, the composition of South Dakota may approach 55 percent rural and 45 percent urban by 1980.

Community Survival

In Iowa, Missouri, and the eastern one third of both Nebraska and South Dakota, most cities and towns of 2,500 or less will encounter increasing difficulty in maintaining stable population. The smaller communities of the entire area will find it increasingly difficult to remain viable cohesive community centers. The exception to this will be smaller communities within a 25-30 mile range of major urban centers and those communities located in isolated areas.

In the western portions of Nebraska and South Dakota, communities of less than 1,500 will encounter difficulties in surviving. However, the smaller communities in the very sparsely settled areas will probably persist for some time as minimum convenience centers providing a very limited range of goods and services to a relatively large geographic area.

Out-Migration

Unless substantial economic inputs are initiated within the area, creating jobs at the skilled and semi-skilled levels, the out-migration of the vital 18-45 year age group is expected to continue at a rate comparable to that of the past fifteen years. This is expected to produce an additional drain from the area of the childbearing age group and the group possessing the highest income producing potential.

Metropolitan Growth

Within the urban complexes, a number of trends are discernible. By 1980, approximately sixty percent of the total four state population will be residing in metropolitan complexes. This will result in the densely populated areas expanding and becoming more densely populated and the already sparsely populated areas becoming more sparsely populated.

The extensive movement of white population from central cities to suburban areas will continue. In addition, the movement of Negroes from central cities to suburban areas which began in the late 1950's is expected to accelerate.

The largest in-migration of non-whites is expected to take place in the cities of St. Louis, Kansas City, Omaha, Council Bluffs, Lincoln, Des Moines, Cedar Rapids, and Davenport. The bulk of the in-migration to central cities is expected to be in the lower socio-economic white and Negro groups and they will migrate primarily from southern and east-central portions of the United States. In-migration to suburban areas will continue to be from the predominately white middle income and upper income groups.

IMPLICATIONS FOR STATE SCHOOL SYSTEMS

The present local school district organizational pattern found in the Midwest presents one of the most illogically conceived and unintelligible configurations imaginable. In September, 1967, the four states reported a total of 5,264 legally constituted school districts, or 24 percent of all school districts in the United States. This structural pattern is even more difficult to justify when one considers that only 4.82 percent of the national population reside in Iowa, Missouri, Nebraska, and South Dakota.

Though the specific terminology varies in describing districts, the general types of local districts organized in the four states are:

Comprehensive districts: districts maintaining K-12 or 1-12 programs.
High school districts: districts maintaining only high school programs.
Elementary districts: districts maintaining only elementary programs.
Non-operating districts: districts operating no educational programs.

Some significant changes have occurred in organizational patterns since 1940 but the proliferation of non-operating school districts and districts maintaining only elementary schools persists. Table 6 indicates the changing organizational pattern in each of the states since 1940.

TABLE 6
School District Organizational Pattern
Iowa, Missouri, Nebraska, South Dakota
1940-1967

	Iowa		Missouri		Nebraska		South Dakota	
Type of district	1940	1967	1940	1967	1940	1967	1940	1967
Unified	970	455	846	478	696	325	295	211
Elementary	3455	3	7263	238	5306	1822	2636	992
High School	0	0	0	0	32	20	5	4
Non-Operating	425	16	554	99	1013	5	351	596
TOTAL	4850	474	8663	815	7047	2172	3287	1803

In Iowa, a combination of semi-permissive and mandatory legislation has resulted in the elimination of most elementary and non-operating districts. The 19 that remain are all in the process of reorganization or are involved in litigation regarding their attachment to unified districts.

In Missouri, semi-permissive legislation has resulted in the sizable decline of both elementary and non-operating districts. Of the 815 organized districts in Missouri, only 237 remain in these two categories.

In Nebraska and South Dakota, however, permissive legislation according total responsibility for adequate organization to local boards of education and/or county reorganization committees has resulted in the continued existence of these two types of districts. Until 1964, the direction of district organization in South Dakota had been opposite from that of all other states in the nation. From 351 non-operating districts in 1940, the number increased steadily until 1,190 such districts were organized during the 1963-

1964 school year. The trend has been downward since 1964 and mandatory legislation enacted by the South Dakota Legislature in 1966 is expected to result in the total elimination of such districts by July 1, 1968.

IMPLICATIONS FOR EDUCATIONAL PLANNING

Analysis of the data assimilated for this study reveals a number of implications that may have relevance for educational planners in the Midwest as well as in other parts of the country.

1. *The criteria of a local community or a group of interrelated local communities as the basis for a school district is obsolete and indefensible.*

Since the early 1940's, one of the prime criteria that has guided the formation of new local districts has been the conviction that a proposed district should encompass one or more community centers that were compatible and preferably contiguous. When one views the massive movement of people from the small communities and the rural areas of the Midwest, this concept is no longer tenable. The small communities of Iowa, Missouri, Nebraska, and South Dakota have little hope of survival as dynamic, cohesive social and economic entities. Some may remain as minimum convenience centers and provide a very limited range of goods and services to a declining population.

Educational organization, which reflect our social system, must therefore be organized around enlarged social, political, and economic communities. The practice of organizing school districts around a community or group of interrelated communities is inconsistent with present identifiable patterns of association.

If local school district organization is to be compatible with other facets of community development, the individuals and groups responsible for organizing schools must look beyond the residentiary activities and interests of the local community. The increased vistas of social, economic, governmental, and cultural environments must be identified and employed in the delineation of enlarged geographic areas for local school districts.

2. *Local school districts should be organized around city centers with populations of at least 2,500 to 5,000.*

In order to insure stability and existence over a period of time, *an adequate pupil population base must be assured before forming new school districts.* The optimum size city center which displays the greatest potential for stability or growth is one that presently possesses a population of at least 5,000 within the corporate limits. There is little indication that communities of less than 2,500 can or will in the future remain dynamic community centers unless they are within a 25-30 mile radius of a major urban center or are located in isolated areas. Therefore, the minmium size city center to utilize in future school organizational planning should possess a population of at least 2,500.

In the isolated areas of central and western Nebraska and South Dakota, there remains the crucial problem of an adequate population base to permit the economical and efficient development of quantitative and qualitative educational programs. In these sparsely populated areas it may be necessary to form school districts around city centers of 1,000 to 1,500. In these instances larger geographic areas will be necessary. This configuration would still necessitate creation of districts with a limited pupil population base. Under these circumstances, states must begin to assume greater responsibility in assuring qualitative comprehensive educational opportunities.

3. *All areas of each state should be in a K-12 district.*

The practice of permitting school districts with limited enrollments to cease operating and send students to contiguous school districts on a tuition basis has flourished in the Midwest. The practice prevents school patrons from participating fully in the governance of their schools. It is a practice, however, which has persisted because of the tax advantages that acrue from not supporting fully a K-12 educational program.

Every citizen, regardless of his residence, age, or dependency status, profits from a state's educational system and should be a fully participating and contributing member of the system.

4. *Future school district reorganization should be based upon comprehensive state-wide planning.*

The changing composition and distribution of state populations, increasing mobility, and the identification of universal educational needs, mandates a new look at our approach to organization.

The Midwest states have, since 1940, gone through various stages of piecemeal reorganization. In most instances, the basic responsibility has been legislatively delegated to County Reorganization Commissions, County Boards of Education, or some other group operating at the county level. The results are today an incredible maze of jagged, irregular, and illogically conceived districts—districts created by the selfishness and greed of some and the indifference of others.

In order to insure qualitative and equitable educational opportunities to all students in the state, comprehensive planning should proceed through a legislatively created commission or through a legislative mandate to the state education agency.

5. *An enlarged and strengthened middle echelon of school government should be developed in the four Midwest states.*

If a local school district is to provide a comprehensive educational program at a high level of quality, and do this with maximum efficiency and economy, it requires from 10,000 to 30,000 students. The present and anticipated density and distribution of the four state population would preclude utilizing these as realistic goals to seek in most areas.

In most areas of Iowa and Missouri, and in the eastern portions of Nebraska and South Dakota, it should be possible to form *administrative districts* with minimum pupil populations of 4,000-5,000 students. Because of size limitations, these districts would be, of necessity, restricted in the quantity of educational programs and services they could provide.

To supplement and coordinate services to local districts, multi-county educational service agencies should be created. With a pupil base of at least 30,000 students, this middle echelon of school government would be able to provide the articulation, coordination, and service functions the administrative districts of 4,000-5,000 could not economically provide for themselves. The point should be emphatically made here that the multi-county educational service agency is not intended to provide programs and services which local districts should provide themselves. It would be providing only those programs and services optimum size local districts in this geographic area could not provide themselves because of excessive costs or incidence of need.

Within each of the four states we find a trend to create around the perimeter of central cities a proliferation of suburban school districts. Many of these districts presently enroll in excess of 5,000 students but certainly do not approach the size of optimum districts. It is difficult to defend this organizational pattern when the combination of several such districts would provide the potential for more extensive educational development.

6. *Increasing attention must be directed to the problems of urban education in the Midwest.*

As indicated earlier, three of the four states involved in this study already have predominately urban populations. Public school enrollments in urban centers are swelling as rural enrollments decline. In Iowa, the 25 largest school districts presently enroll 40 percent of all the state's public school students. In Missouri, schools in the Kansas City and St. Louis metropolitan complexes enroll 44.7 percent of all Missouri public school students. Omaha and Lincoln presently enroll approximately 50 percent of all Nebraska public school students. In South Dakota, two cities, Sioux Falls and Rapid City, enroll approximately 20 percent of all public school students. If the state system of education is to meet the needs of all, it must do so where the students are located. This is in the urban centers! Increasing amounts of each state's resources, both human and material, must be diverted to the urban centers.

As urban centers have enlarged they have developed educational systems autonomous and separate from most segments of the state education system. In many instances they operate today quite independent of the state education agency. As statewide planning and development emerges, it would certainly suggest the necessity for a concerted effort to realign the relationships between state education agencies and urban school systems.

The challenges facing educational planners in the Midwest, as well as most sections of the country, are multitudinous. With sizable increases in urban poulation, declining rural and small city population, great variances in the density distribution, substantial out-migration, and a rapidly changing age composition, the task of describing an organizational structure to provide for optimum educational opportunities is difficult and complex.

Only through a comprehensive statewide assessment, and the resulting readjustment of all structural components in concourse, will the type of organizational structure emerge that is so direly needed in the Midwest today.

CHAPTER 3

A SEARCH FOR QUALITY IN EDUCATION

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PART I

We can describe a quality automobile in terms of styling, performance, materials, workmanship, and design.

We can describe a quality-built home in terms of attractiveness, room arrangement, materials, workmanship, heating and lighting arrangements, accessories, and function.

We can describe a quality corn or wheat harvest in terms of yield, moisture content, damaged kernels, minimum test weight, and kernels free of foreign material and damage.

When, however, we seek to describe a quality educational program we have great difficulty in coming to grips with the characteristics of a quality school. The difficulties in approach are illustrated in these examples:

1. A Letter to the Editor:

   What is meant by "better quality" education? .. Objection is found with the premise that the consolidation of "small, inadequate" parochial schools is the main reason for the efforts made to pass a fair bus bill. This writer was under the impression that there was a principle of justice involved.

   The mode of transportation will have little effect on the quality of education given to children once they enter the classroom of their choice. One might ask: Are the words "small" and "inadequate" necessarily synonymous? ... (Has) the senator examined the standard test scores (made by Iowa children attending "small rural parochial schools") and compared them with larger city schools? If so, has he found a variance in achievement?[1]

2. A Professional Association Report:

   Education is a process of acquiring the knowledge, skills, and standards of a culture, and of learning to contribute to that culture. The public elementary and secondary school is but one of many institutions in the United States engaged in education. The roles of home, church, and community are basic, and educational opportunities are supplied by colleges, universities, professional schools, independent schools, and adult education. The primary responsibility, however, for the education of most Americans rests with the public schools. It is with the quality of these schools that most Americans are concerned today.

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[1] Des Moines *Register*, November 19, 1967.

The best education is that which does most to enable each student to develop his abilities and to serve society. Education must therefore be appropriate to the needs of each pupil and to the needs of society. But students are individuals, student bodies are constantly renewed, and society is ever-changing. It follows that education must be dynamic and diverse. High quality in education implies never-ending adaptation and improvement.

Evaluation of such an enterprise is complex. The performance of a school system must be studied not only in the light of what it is at any given time, but also in terms of what it is becoming. And what a school system does must be considered not only in relation to what it should do under ideal circumstances, but also in relation to what is possible in the actual circumstances.

There is no simple test of quality, and this statement proposed none. It proposes, rather, to describe some of the characteristics of high quality in public education and to indicate certain essentials without which such quality cannot be obtained.[2]

3. A Research Document Discussing Cost-Quality:

The 17 indexes of the cost-quality relationship selected were:

(a) Enrollment
(b) Ratio of enrollment
(c) Pupils-per-teacher ratio
(d) Pupils-per-administrator ratio
(e) Pupils-per-clerk ratio
(f) Pupils-per-guidance counselor ratio
(g) Dollars spent per teacher on in-service growth
(h) Dollars spent per pupil on library books
(i) Average education of teachers
(j) Average experience of the teaching staff
(k) Average salary of the teaching staff
(l) Expenditure-per-pupil ratio
(m) Supply-expenditure-per-pupil ratio
(n) Instructional-expenditure-per-pupil ratio
(o) Local effort (mills on market value)
(p) Market-value-per-resident-pupil ratio
(q) Basic-account-standard-reimbursement fraction.[3]

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[2] Education Policies Commission, "An Essay on Quality in Public Education" (Washington, D. C.: National Education Association, 1959), pp. 5–6.

[3] Thomas S. Hamill, "A Factor Analysis of 17 Indexes of the Cost-Quality Relationship in the Two-, Three-, and Four-Year High Schools of Pennsylvania," *The Challenge of Change in School Finance* (Washington, D. C.: National Education Association), pp. 185–86.

4. A Professional Report:

   It is easiest to rate a school on characteristics that are readily visible and measurable. These include ratio of professional staff members to pupils, working conditions and salaries, equipment, supplies, textbooks, buildings, provision for special services, various administrative procedures, and certain instructional policies. Last year, the National Education Association published an evaluation instrument, entitled *Profiles of Excellence*, which contained recommended criteria for assessing the quality of a local school system. It rates as superior practice, for example, the provision of 65 professional staff members for every 1,000 pupils, flexible grouping of pupils depending on the educational purpose to be served at given times, and a unified and fiscally independent school district.

   Less easy to evaluate are some of the more abstract educational goals embodied in the daily topics for American Education Week 1967. It requires a rather thorough familiarity with a school's philosophy, practice, and products to make even a general evaluation of the school's effectiveness in some of these areas. The topics, however, are not mutually exclusive. Each depends, to some degree, on the school's performance in all the others for its complete assessment. Quality teaching, for example, would naturally result in shaping the character of youth, providing learning opportunities for all, and meeting the challenge of change. By definition, it would stimulate lifelong learning, develop vocational competence, and thereby enrich the lives of the students affected by it. Similarly, in order to develop competence in the vocations of today and tomorrow, a school must provide learning opportunities for all, meet the challenge of change, offer quality teaching, and stimulate life-long learning.[4]

If usage makes the term "quality education" confusing, then efforts at precise definition are even more frustrating. Webster's Unabridged Dictionary gives these definitions of "quality":

Peculiar and essential character, a distinctive inherent feature
A degree of excellence
Social status
A special or distinguishing attribute
Something that serves to identify a subject of perception
Manner of action

A somewhat easier definition to grasp is offered in the Dictionary of Modern American Usage:

A characteristic property or attribute
Character or nature
High grade

When we discuss quality education we are attempting to describe what happens to an individual as a result of attending a school and participating in school-directed activities. We all know, or should know, that education is only one social force which results in the education of individuals. It is now generally accepted, for example, that family and environmental factors may be more influential in determining what and how an individual learns than is the school. This, of course, does not mean that the school situation is not influencing people who are enrolled in the programs established by the schools. We are dealing with relative matters, and the extent to which one or another factor is influential is unimportant. We are seeking to make maximum use of all factors in providing for high quality education.

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[4] "How Good Are Your Schools?" Source Book for Speakers and Writers 1967 (Washington, D. C.: National Education Association, 1967), p. 8.

The quality of education being promoted within the environs of the school will be influenced strongly by the quality of family and community life from which the students come; by the types of television programs watched and the extent to which TV is viewed; by the radio programs, movies, magazines, and newspapers which are heard, seen, or read; by the ethical and religious convictions which are expressed at home and at the churches; and by the multiple other community factors which seek to influence students, parents, and teachers.

Quality is a term used to suggest a high level of excellence whether it be in a man-made product, a living plant developed by the forces of nature, or the efforts of an individual or an institution. Quality, however, is not an absolute value, for often people speak of low quality merchandise or low quality seeds or low quality schools. When the adjective is applied, a concept of relative standard is brought into play. As used in this report, quality is considered a level of performance at the highest range of man's capabilities.

In a school where quality education is taking place something positive is happening to boys and girls, young men and young women, and adults which makes a difference to them and which can be described. A quality program of education operating within the schools produces individuals who are capable of the following:

1. THE INDIVIDUAL USES HIS TALENTS AND ABILITIES TO THE MAXIMUM OF HIS POTENTIAL.

A quality school located in the center of a deprived area assists children to read at or above national norm levels and teaches all children to read. In an affluent city school the children read at levels well beyond national norms, and specialized enrichment programs promote depth and breadth of reading interests. In both school situations quality is found because of the efforts to maximize the potential of all children in the school.

The quality school is interested not only in limited talent areas but also seeks to provide for the range of human potential. Learning to read is deemed essential but so too are the artistic behaviors of mankind. Students not only have opportunities to develop their talents in creative writing, art, music, drama, and the dance, but systematic efforts are promoted to seek ways of fostering these talents. Whether the individual is skilled academically, artistically, physically, or socially, the quality school searches and finds ways to encourage him to use these talents to the best of his ability.

Within the quality school a process is taking place which lends an appropriate balance to any one-sided development of talent. Fully aware of the nature of our society, the quality staff performing within the quality school seeks to insure an appropriate balance for individuals. The talented art student is given ample opportunity to develop his artistic capabilities, but is also encouraged to develop to the maximum his understanding of the governmental processes or the function of science in society. Over-all human excellence is sought at the same time unique abilities are being nurtured.

The mentally retarded is helped to become a useful citizen, the physically handicapped learns how to overcome his disabilities in a positive way, the athletically inept is taught the skills and values of physical fitness, the academically gifted may need to learn compassion for those not so able, and the emotionally lost are helped to find their way in the school which seeks to establish the quality image.

2. THE INDIVIDUAL SEEKS TO CONTINUE HIS EDUCATIONAL DEVELOPMENT.

Education must be a lifelong process if individuals are to maintain themselves in a world of change. It has almost become trite to illustrate rate of change in science, medicine, technology, communication, and transportation because the change-rate has become so accelerated that we become insensitive to the succeeding new advances. The octogenarian may look back with nostalgia upon the time-travel dimension provided by the horse and buggy; his great-grandchild can only understand the time-travel dimensions provided by the automobile and the airplane. The generations to come will have to understand and adjust to their own cycles. The quality school has the responsibility of providing individuals with the means for adapting to and controlling change.

Concern for education in the quality school begins with the young and extends throughout a lifetime. The quality school provides parents with the education necessary to bring and sustain a new life, new dimensions on this earth. Special programs may be developed to help parents establish a sound learning and growing base for their children. Where necessary, the school might even provide adequate infant facilities to insure the start of a sound learning process. At the pre-school level adequate facilities and resources are available to introduce children formally to a world of change and to the need for lifelong learning.

It is the responsibility of the quality school to provide the resources and the know-how to encourage individuals to make learning a lifelong process. The quality school can, in part, measure its success by ascertaining the extent to which its ever-changing population is actively engaged in the process of continuing education. Quality is seen in the ability of individuals to sustain the educational process without the necessity of imposing legal sanctions which require attendance.

3. THE INDIVIDUAL IS ABLE TO PARTICIPATE ACTIVELY AND POSITIVELY IN THE WORLD OF WORK.

The world of work may be a college classroom or a foundary or a farm or a governmental office. For many women the world of work can be considered the home. A quality educational program has the responsibility for assisting individuals to acquire the skills which will enable them to occupy an established role in society. While education may be an end in itself for a few individuals, it must be considered a means for securing satisfactory work roles for most of us.

Within the quality school a recognition exists that the basis which can be used by individuals to enter the world of work must be established early. For the future world of work for the professional man, individuals must learn those skills and areas of knowledge which are often associated with the word "academic." Languages, literature, mathematics, science, and history may become the vocational tools which are needed in the future. For the machinist, it may be necessary to provide industrial arts, mechanical drawing, and related experiences. If the school is to provide an entry into the world of work, then the many doors which can be opened must have keys.

The quality school is not unaware of the need for providing individuals with the potential for mobility. In an open society it becomes essential for the quality school not to limit individuals in their choice of occupation. First by broadly designed exploratory programs and then by more specialized sequences, the school introduces individuals to the world of work and then helps them formulate specific goal plans. Through programs, teachers, and the use of guidance counselors, young people are helped to make decisions and then develop the skills which will enable them to achieve their goals. The school also is available to assist those who by desire or necessity are forced to change their role in the world of work. The quality school leaves no person in limbo, for each is a valuable asset to society.

The quality school shoulders one additional responsibility in this area. It seeks to promote the dignity of human labor in all areas. Not all individuals can become atomic scientists, but all who do must maintain a respect for the dignity of the individual who is responsible for menial chores. For this reason the school is not vocationally restrictive but seeks to develop the humanistic values which produce the highest virtues of mankind. A technical school may develop able craftsmen but it can become a quality school only when it also pays attention to the broader values held viable by mankind. By the same token an academic or college prep high school cannot gain a reputation as a fine school by serving limited objectives for a limited number of students. It can only assume the quality designation by showing response to the need for educating all in the virtues of the work world.

4. THE INDIVIDUAL CAN ENGAGE IN PROBLEM SOLVING AT THE ABSTRACT AND THE CONCRETE LEVELS

In the changing world identified earlier, in a world warped by conflicting ideologies, in a world where solutions to contemporary issues do not come in prescribed packages, the quality school has a major responsibility for assisting students in becoming problem-solving individauls. The quality school is a problem-solving school where individuals seek answers to questions, where the techniques of the researcher are an integral part of the teaching process, and where the way is open for individuals to explore.

Within the quality school students, teachers, specialized personnel, and administrators seek new ways of improving the educational process. Rigid schedules, excessive reliance on workbooks, prescriptive study guides, and uniform work standards are considered handicaps to the improvement of instruction. A spirit of inquiry prevails in classrooms from the pre-school years through continuing education classes for adults.

The quality school is an educational laboratory where in classrooms, shops, art studios, gymnasiums, and auditoriums can be seen efforts to encourage individuals to solve mundane and major problems.

5. THE INDIVIDUAL IS DEVELOPING A POSITIVE PATTERN OF VALUES WHICH SUSTAIN HIM AS AN INDIVIDUAL AND A MEMBER OF SOCIETY.

A school can only have the designation "quality" when its students have acquired a positive sense for the values of our society and are able to express their beliefs in appropriate action. The quality school produces individuals who express their views through elections and representations to their elected officials. Quality schools produce individuals who are informed and who seek means of staying informed. An individual who comes from a quality school is active in civic, social, religious, and governmental agencies. The quality school produces activists but not anarchists.

There is no greater responsibility for a school than the education of individuals in the values which have transformed man of the primitive state of prehistoric times to man of the twentieth century. While the laws, customs, mores, and values are not absolute from one nation to another, from one culture to another, or even from one generation to another, there are common threads which have been woven through the fabric of time to give people goals for survival. These values are forever being tested and no one would propose they will not be modified in the future. The quality school offers an educational program and operates in such a manner as to provide people with the opportunity to consider the evolution of their own values in view of historical values and the conditions of the contemporary era.

The quality school demonstrates its interest in and respect for value development in the manner in which students are treated. Respect for the individual student is the breeding ground for respect for one's neighbors. Respect for the dignity and worth of all students is the starting point for developing respect for persons of all races, creeds, or point of national origin. Respect for the rationality of students is essential if they are to develop respect for the ability of humans to solve their problems through collective considerations. Respect for the rights of students is the starting point for developing a respect for the law. Whether through a study of literature, history, or contemporary problems the quality school shows a concern for the problems of value development. This concern extends beyond the limits of an artificial graduation time and beyond the confines of a school site. The quality school seeks to extend its influence to matters of the community; it measures its success in the attention its students pay to active participation in community life. The quality school is a community school and the health of the community is a reflection of success in this area.

PART II

While quality education results in the five characteristics described in Part I, one needs to consider the factors which specifically contribute to quality education. The chances for securing the type of results which have been suggested are dependent upon the conditions which can produce the desired results. It therefore becomes possible to consider an analysis of quality education by understanding the conditions which tend to produce the quality. It would even be possible to study the conditions and reach the conclusion that the existence of the conditions leads to a quality school situation.

TEN KEYS TO QUALITY EDUCATION

1. PROFESSIONAL STAFF WITH HIGH QUALIFICATIONS ARE EMPLOYED AND ARE GIVEN THE OPPORTUNITY TO PERFORM THEIR DUTIES.

While other factors will influence the degree to which quality education can take place within a school, there is little doubt that the teachers within the school represent the single most important educational factor in the total learning process. Teachers establish the learning environment and the conditions which are largely responsible for the educational results. The importance of teachers requires a set of conditions which must first be met if the other "keys" to quality education are to be meaningful.

The teaching staff is fully qualified at a professional level beyond that deemed minimal by state regulations.

At the elementary school level all teachers must have a bachelor's degree and they should be continuing their education towards a master's degree. The quality school has many elementary teachers with advanced degrees.

At the junior and senior high school levels most teachers must have a master's degree and many should be working on specialized advanced study. At this level teachers must have specialized training in the areas they are teaching.

The teaching staff is assigned to the areas where they are trained to teach.

Working conditions and policies exist which facilitate the efforts of the teachers.

Policies affecting staff personnel have been cooperatively developed and are available to all staff members.

Orientation programs for new staff members are a continuous process and may extend from one to three years.

Teachers are assigned on the basis of specific job requirements and the individual's preparation, experience, and preference.

Although special emphasis is placed upon probationary teachers, every professional employee is evaluated on a continuing basis and shares responsibility for such evaluation.

Leave policies encourage teachers to attend professional conventions, conferences, or meetings; engage in community relations efforts; serve on committees or in special workshops outside the school system; and visit other school systems.

A compensation policy (salary and fringe benefits) exists which enhances the professional status of the teacher. (The standards for such a policy can be found in many sources including a 1966 NEA publication *Profiles of Excellence.*)

A continuous program of curriculum study involves the teaching staff and permits them to develop improved curricular and instructional practices.

Teachers enjoy academic freedom and freedom in their personal lives equal to that accorded other professional persons in the community. Teachers are relieved of such non-instructional duties as computing attendance records, entering scores on pupil records, typing, scoring standardized tests, supervising bus and lunchroom routines, and collecting funds, by the employment of clerical and non-professional personnel to perform these tasks.

2. EDUCATIONAL PROGRAMS ARE DESIGNED TO MAXIMIZE THE EDUCATIONAL ATTAINMENT OF ALL THE PEOPLE IN THE COMMUNITY.

Teachers and students as they work together are enclosed in the perimeter of an educational program. While the program perimeter may be very broad, indeed it should be, reference points exist which permit understanding what is taking place in the school. For the quality school of the future there will continue to be packaged subjects and courses but within these schools the primary program emphasis will be upon individualized instruction structured by carefully tailored curricular segments, blocks, and units. Whether children or adults, students will do independent study, will meet in small discussion groups, will attend some regular classes, and will be involved in large lectures, or media demonstrations, or activity programs. Appraisal practices will be for the purpose of diagnosis and prognosis rather than for test records and grades.

Each elementary school child is entitled to:[5]

—A high quality of education.

—The opportunities available in a well-planned curriculum which balances the emphasis in the academic subject fields and is developed for learning experiences from the kindergarten through the twelfth grade.

—A curriculum which places emphasis upon the desire and tools for learning without ignoring the basic academic facts.

—Participate in learning situations planned for large and small groups, and individual learning.

—A variety of instructional materials and aids that can challenge this curiosity and can develop his potentialities.

—The guidance of competent teachers and specialists who are capable of determining appropriate educational activities in relationship to his abilities and maturity.

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[5] Brief of a position paper, "Elementary Education and School District Organization," prepared by Dr. Rosalie Farley, University of Nebraska, for The Great Plains School District Organization Project, October, 1967.

The elementary school curriculum must include:

- —A language arts program, with emphasis on oral and written expression; listening; spelling; handwriting; literature; a second language.
- —A social studies program that enables the child to understand the historical developments of our nation, the form of government, our economic system, and the relationship of our nation to others in the world.
- —A science program that enables a child to know and appreciate science; to perform simple experiments; to interpret, record, and report accurately; to distinguish between truth and superstition; and to associate and apply science with daily living.
- —An arithmetic program, with emphasis on the usefulness of arithmetic and its practical and scientific applications.
- —A health, physical education, and recreation program.
- —A fine arts program in which he learns to express himself through music, art, and language.

Provision must be made for:

- —The development of skills in oral and written communication, decision making, problem solving, creative thinking, computations, competence in self-instruction and independent learning.
- —The development of wholesome attitudes concerning his own dignity and worth, his role in society, his responsibilities in a democracy, and his contributions to others.
- —Opportunities whereby the pupil can participate in group activities, work independently, experience successes, and realize that failures can become beneficial.
- —Educational services, including guidance and counseling, school health services, special education, psychological and psychiatric assistance, and instructional materials centers.

An optimum program for elementary schools includes:

- —A balanced, flexible, and articulated educational program from the kindergarten through the twelfth grade under the leadership of one superintendent of schools, a local board of education, and an elementary school principal.
- —Those educational services which are needed by a sufficient number of students in the local elementary school to justify the expenditure.
- —Arrangements for additional educational services from another attendance unit or administrative level whenever specific services are not offered locally.
- —A pupil-teacher ratio of approximately 25 to 1 and arrangements for grouping students in large or small groups and for individual instruction.
- —Provisions for physical facilities for library services, educational television, physical education, health services, conference room, teachers' lounge and workroom, arrangement and space for academic specialists,

special education, bus transportation and lunch-room facilities when necessary, after-school and community activities, and arrangements and facilities for individual studies and research projects by professionally prepared educators.

Optimum programs for sparsely settled areas include:

- —The basic instructional program with facilities for library-audiovisual services, health services, physical education, and lunch-room activities.
- —Arrangements for additional educational services from another attendance and/or administrative unit.
- —Arrangements for specialist in the academic subject areas from another attendance and/or administrative unit.
- —A pupil-teacher ratio of 20 to 1.

The Middle School or Junior High School should result in young peaple who have:[6]

- —A sense of positive self-worth and an enhanced understanding of others.
- —A genuine interest and strengthened competence in several areas of learning, and acquaintance with the world of work.
- —Mastery of basic skills of inquiry and study so that independent work may be pursued more adequately.
- —An increased capacity to discipline themselves to work, study, and play constructively and with satisfaction to themselves and others.
- —A moral and ethical sense which values the goals and processes of a free society.

The junior high school continues the skill development started in the elementary years, and helps young people gain additional competence in those skills necessary for lifetime learning. Children who lack competence in reading, computation, problem-solving, or logical thinking are provided the assistance necessary to help them overcome their handicaps.

The importance of physical development and physical education in the lives of all early adolescent boys and girls is recognized. Participation for all students is considered essential in a program which includes athletic activities and places considerable emphasis on personal hygiene, nutrition, diet, and other health matters.

A basic function of the junior high school is to provide for and to encourage exploration of vocational and avocational interests. Art, music, homemaking, industrial arts, crafts, speech and drama must be provided for and be available to all students. Foreign language classes should be provided with laboratories to assist in the development of conversational skills.

The junior high school provides a block-of-time program which focuses on the kinds of general education skills and concepts which the young adolescent needs for a responsible and satisfying life.

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[6] This portion adapted from "The Junior High School We Need," a Report from the ASCD Commission on Secondary Curriculum, 1961 (Washington, D. C.: National Education Association), pp. 3, 19–29.

The junior high school seeks to bring young people into situations in which they can explore, discuss, and face up to the value confusions and contradictions and to the unparalleled opportunities that characterize the world in which they live. The object of these efforts would be to foster a strong commitment to the development of democratic values.

Because education is an ever changing process, the junior high school of the future will probably not resemble a school we consider adequate at the present time. In the report "The Junior High School We Need," some characteristics of a quality junior high school of the future are described as follows:

1. It must continue to recognize the development of democratic values as its central commitment.
2. It should rely upon a basic policy of experimental development of the instructional program.
3. It should seek continually to improve time arrangements for effective learning and teaching.
4. Its instructional process should be planned explicitly for the junior high school years.
5. It should be an ungraded institution.
6. It should incorporate routines and patterns that encourage civility in living.
7. It should use varying instructional procedures to accomplish the purposes of junior high school education.
8. It should provide many means for the student to see himself as a significant individual in a larger world setting.
9. The school year should be extended to provide a richer and more effective education program.
10. Aesthetic and creative opportunities and experiences should be abundant.
11. It should provide extended guidance for all students.
12. The staff should be given differentiated assignments.
13. New developments in technology and in materials of instruction should be utilized.
14. Administrative responsibilities should be more clearly defined.
15. Gaining knowledge, skill, and understanding are basic goals for junior high school pupils.

The Secondary Schools of the United States, in many ways richly unique institutions, must contribute to the development of basic citizenship beliefs and skills and also promote the individual's unique abilities.[7]

The secondary school program should provide comprehensive offerings to all students and opportunity to seek and secure educational opportunities for maximum cultivation of potential. Not only should a wide range of offerings exist but opportunities for association with a wide range of individuals should also be created.

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[7] Adapted from position papers prepared for The Great Plains School District Organization Project: Franklin Stone, University of Iowa, "Secondary Education and School District Organization" and Byrl Shoemaker, State Department of Education, Columbus, Ohio, "Vocational-Technical Education and School District Organization."

An Optimum Secondary School Will Have:

- A broad program of studies and activities including:
  - English, Language Arts, and Literature
  - Two or more foreign languages
  - Vocational and/or non-vocational
    - Agriculture: agricultural production, mechanics, management, and leadership.
    - Home Economics: personal and family relationships; home management; consumer competence and responsibility; care and guidance of children; selection and care of the house and its furnishings; clothing for individuals of the family and food for the family.
    - Business and Office Education: bookkeeping, clerical, office machines, data processing, secretarial, and stenographic.
    - Distributive Education: retailing, wholesaling, service.
    - Trade and Industrial Education: machine trades, auto mechanics, basic electricity and electronics, mechanical drafting, printing, welding, sheet metal, bricklaying, carpentry, plumbing, and cosmetology.
  - Physical education and health
  - Drama and Speech
  - Mathematics
  - Sciences
  - Social Studies
  - Art
  - Creative writing
  - Music
- An organization which will provide stimulation for self-learning.
- Multiple activities instructional materials centers.
- Individualized learning and group learning technologies.
- Well trained, professionally oriented teachers.
- An in-service teacher training program as a continuous process.
- A corps of skilled specialists to assist the teachers, including but not limited to the following services: psychological, social, health, guidance, instructional materials-learning, field experience, laboratory learning, handicapped, gifted, culturally developed, and many others.
- Housing and facilities conducive to an optimum learning environment.
- Extensive teaching-learning tools and materials.
- The capacity to bring about needed change.

Programs are readily available for persons in the district who need or wish to maintain their education.[8]

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[8] Reproduced from a position paper, "Reference and Source Materials in the Area of Adult Education," prepared by Dr. Andrew Hendrickson, Director, Center for Adult Education, Ohio State University, for The Master Plan For School District Organization in Ohio, 1966.

Basic Education

This would include traditional courses in English and citizenship for the foreign born; classes in literacy for the native illiterate; and classes in Adult Basic Education under Title II B of the Economic Opportunity Act or basic training preparatory to skill training under the Manpower and Training Act or similar acts; classes enabling any adult to complete his elementary education through the eighth grade or equivalent.

High School Subjects

This includes a sequential program providing adults with the opportunity to complete high school and obtain a diploma; it would also include the opportunity for qualified adults to enroll in the same classes for their personal benefit regardless of their desire to graduate. Examples of such classes would be English, public speaking, algebra, language classes, bookkeeping, and shorthand.

Adult Vocational Courses

Most such courses would benefit from and be administered under the Smith-Hughes and subsequent Federal Vocational Acts. However, there may be certain kinds of occupational courses which do not qualify under the vocational laws, or on occasion, a local board of education may wish to offer certain courses on its own without complying with the conditions laid down in the vocational education acts.

Parent and Family Life Education

In addition to homemaking courses such as cooking, sewing, and upholstery, this would include classes and informal activities in child study, family relations, and home-school relations. A recent tendency has been to include group guidance to the parents of the college-bound and non-college bound youth. Many of these activities could be carried on in cooperation with the P.T.A. and other interested lay groups.

Civic and Public Affairs Education

This would include not only formal classes in history and political science, or special classes for young voters, but also public forums, study clubs, and other informal activities designed to develop an informed citizenry. Use should be made of films, press, radio, and television. Since adults are more likely to look to their clubs and organizations for programs about community betterment than to the schools, the role of the adult educator in this area may often be that of helping civic leaders, through consultation and program clinics, to perform their educational functions at the highest possible degree of efficiency.

Cultural and Leisure-Time Activities

The school's share of responsibility in this area will be determined by the ability and willingness of other agencies to participate. "Y" organizations, churches, art galleries, private schools, and nearby colleges and universities provide numerous opportunities for recreation and self-fulfillment in many communities. The fact must not be overlooked, however, that the schools have an unusual concentration of facilities and staff for service in this area, that they are supported by the public and are readily accessible in every community. Examples of facilities which lend themselves to recreation are art studios, music rooms, gymnasiums, swimming pools, auditoriums (stages), and shops. Teachers of art, music, speech and drama, physical education, and industrial arts are examples of staff who could assist in this area.

Health and Safety Education

This could go beyond courses in physical fitness and weight control to include lectures and discussions on the control of heart disease, cancer, and other diseases. It would also include driver education, first aid, safe boat handling, and civil defense and disaster training.

Community Services

This would consist of offering consultant services and other educational services to interested community groups. Such services would include training discussion leaders, consultation with program chairmen, and provision of educational materials and equipment.

3. SPECIALIZED PERSONNEL AND INSTRUCTIONAL SERVICES ARE AVAILABLE FOR ALL STUDENTS.

The quality school has the responsibility for providing educational services for all; this entails making provisions for the able as well as the handicapped. Whether at the elementary school level or at the adult education level, the quality school provides the services of the guidance counselor, school psychologist, psychometrist, speech pathologist, audiologist, and social worker. The full potential of contemporary knowledge and skill is brought to bear upon the needs of individuals. No school can be considered of high quality unless specialized programs are readily available for the homebound and for the gifted. While a single school might not have all specialized services available within a single structure, accessibility to these services within a local or service district must be immediate rather than remote.

I. Psychological Services[9]
   A. Psychological services should be provided by properly trained and certified school psychologists.
   B. The staffing ratio of school psychologists to pupils should be from one to one thousand to one to three thousand based on enrollment in grades K through 12.

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[9] Reproduced from a position paper, "Organizing a Balanced Pupil Personnel Program," prepared by Dr. S. J. Bonham, Jr., Director, Division of Special Education, State Department of Education, Columbus, Ohio, for The Master Plan For School District Organization in Ohio, 1966.

C. School psychologists should be housed in the central administrative office and facilities for individual testing and conferences should be provided in both the central office and in each building unit.

D. The primary function of the school psychologist is the intensive, individual psychological study of children. He uses the resulting information and understandings about children in collaboration, consultation, and counseling with children, parents, teachers and other professional workers in the school and community.

II. School Social Work Services

A. School social work services should be provided by properly trained and certified school social case workers.

B. The staffing ratio of school social workers to pupils should be from one to one thousand to one to three thousand based on enrollment in grades K through 12.

C. School social workers should be housed in the central administration office and facilities for case work counseling and interviewing should be available in both the central office and in each building unit.

D. The primary function of the school social worker is to provide case work services to children and families and to work with community resources and agencies.

III. Counseling Services

A. Counseling services should be provided by properly trained and certified school counselors.

B. The staffing ratio of school counselors to pupils should be from one to three hundred to one to five hundred based on enrollment in grades 7 through 12.

C. School counselors should be housed in the building unit to which they are assigned and facilities for individual interviews, counseling sessions, and conferences should be available in the building.

D. The primary function of the school counselor is to coordinate the guidance program and to provide individual counseling services to pupils to assist them with educational, vocational, and personal-social concerns.

IV. School Health Services

A. School health services should be provided by properly trained and certified school nurses working under the medical supervision of a school physician.

B. The staffing ratio of the school nurses to pupils should be from one to one thousand to one to three thousand based on enrollment in grades K through 12.

C. The school nurses should be housed in the central administration office. Clinic and office facilities should be provided in each building unit.

D. The primary function of the school nurse is to coordinate the school health services program including the identification and continuing follow-up of pupils with health problems.

V. Speech and Hearing Therapy Services

A. Speech and hearing therapy services should be provided by properly trained and certified speech and hearing therapists.

B. The staffing ratio of speech therapists to pupils should be from one to two thousand to one to three thousand based on enrollment in grades K through 12.

C. The speech therapists should be housed in the central administration office. A small room properly equipped for speech therapy should be provided in each building unit.

D. The primary function of the speech and hearing therapist is to provide therapy services for children with speech problems.

VI. Attendance Services

A. Attendance services should be an administrative responsibility assigned to each buildiing unit. In many school systems the attendance services that will be needed beyond this can be provided by the school social worker or the pupil personnel administrator. In other school systems the extent of the attendance problem will require that one or more persons be assigned to this service. In such cases this person should be an individual with training and experience as a probation counselor in a juvenile court or similar agency. In addition, he should be properly certified as an attendance officer or visiting teacher.

B. The staffing ratio of attendance officers or visiting teachers to pupils should be from one to five thousand depending on the nature of the school and community.

C. The attendance officer or visiting teachers should be housed in the central administrative office. Facilities for interviewing and counseling should be provided in each building unit.

D. The primary function of the attendance officer or visiting teacher is to enforce the attendance laws of the state and local school district.

VII. Child Accounting Services

A. The child accounting services should be provided by a person with training and experience in the operation of data processing equipment.

B. The staffing ratio in this area is not directly related to number of pupils. In all school systems enrolling more than ten thousand students at least one such person is needed. Larger school systems can provide for the increased work load by adding clerical staff in the pupil personnel department or in the data processing room.

C. The child accounting supervisor and the data processing equipment should be housed in special facilities in the central administrative office.

D. The primary function of the child accounting service is to assist the pupil personnel department and the school system to accumulate, maintain, and utilize essential data on the school population.

VIII. Pupil Appraisal Services

A. The pupil appraisal services should be coordinated by a person with graduate training in research, measurement, and statistics.

B. The staffing ratio in this area is not directly related to the number of pupils. In school systems enrolling more than ten thousand students at least one such person is needed. Larger school systems can provide for the increased work load by the addition of clerical staff in the pupil personnel department.

C. The pupil appraisal supervisor should be housed in the central administrative office.

D. The primary function of the pupil appraisal supervisor should be to coordinate a school-wide group testing program and to analyze and interpret the results to appropriate personnel throughout the school and community.

IX. Remedial Instruction Services

A. Remedial instruction services should be provided by properly trained and certified remedial teachers.

B. The staffing ratio of remedial teachers to pupils should be from to two thousand to one to three thousand based on enrollment in grades K through 12.

C. The remedial teachers should be housed in the central administrative office. Facilities for small groups and individual tutoring should be provided in each building unit.

D. The primary function of the remedial teacher is to provide individual and small group tutoring for children with specific learning disabilities in the basic skill areas.

X. Special Education Services

A. Special education programs should be provided by properly trained and certified special education teachers.

B. The staffing ratios of special education teachers to exceptional pupils should be based on the nature of the exceptionality and will vary from one to six to one to twenty pupils.

C. Special education teachers should be housed in the building unit to which the special class or exceptional pupils are assigned.

D. The primary function of special education services is to provide for the educational needs of exceptional children that cannot be met in the regular classroom.

4. MODERN INSTRUCTIONAL MEDIA ARE AVAILABLE TO ALL TEACHERS AND PROVISIONS FOR THEIR EFFECTIVE AND EFFICIENT USE ARE ASSURED.

The time honored lesson-recitation approach to teaching, supplemented by reading materials, has had to make way for a multi-media approach to instructional practices. The teacher, the book, the recitation are all still available, but within the quality school use is made of television, computers, dial access systems, educational games, rear view projectors, tape recorders, overhead projectors, models, programmed texts, filmstrips, films, recordings, and a wide range of recently designed tools and techniques for teaching. While at the present time some of the educational technology is in the experimental stages, there is ample evidence to indicate that widespread use of existing tools is justified.

It is not possible to list all of the technological developments which have been available and should be accessible to teachers, but it is readily apparent that the quality school must be equipped as a learning resources facility to give students and teachers an opportunity to become multi-media experts.

The term "learning resources," by definition, embraces every person, experience and item of material or hardware available to the educational process. In designing a meaningful and comprehensive educational program every possible resource should be considered in light of present-day knowledge of the teaching-learning process. As a means of organizing these resources into a purposeful system, the role of technology must be examined for its potential in meeting educational objectives.

Recent investigations in learning theory and practice are placing increased emphasis on the employment of technology in presenting concepts, ideas, and information to students in large groups, small groups, and individual situations. Many new programs, facilities, and materials are being designed to meet these needs.

The understanding of technology as it applies to educational systems is basic to the development of solutions to many learning problems. In a well-defined learning system many experiences can be programmed and presented, utilizing materials and hardware which free the teacher to attend to more creative and personal aspects of teaching. In such a system the teacher serves as a solver of individual and group learning problems, while maintaining control over the total situation.

Policies, personnel, facilities, and budget must be provided to meet learner needs. We shall always have gifted, average, slow, handicapped and special students in our schools. We should have systems and resources which help all of them to learn and succeed.

Within this setting it becomes necessary to establish the role of an instructional materials specialist who will design, implement and maintain systems which meet today's and tomorrow's educational objectives. Specifically, such a person must have knowledge of learning theory and of solutions to learning problems. He must be skilled in presentational techniques employing a variety of materials and hardware. He must know when to employ a variety of elements, ranging from computers to teachers. Perhaps his role can best be identified as a catalyst in merging students, learning environment and teacher.

Today's school library or instructional materials center or learning resources facility includes all materials and equipment. Books, films, tapes, records, filmstrips, monographs, pamphlets, study prints, overhead transparencies, models, dioramas, maps, charts, slides, microfilm, and programmed materials should be available in quantity and quality for teacher and student needs. Equipment necessary to view, hear and use these materials should be easily accessible. Most importantly, the person assigned to direct this program should be prepared to match available resources, be they book or non-book, with learning needs.[10]

5. EXPERIMENTATION, INNOVATION, AND THE PROCESS OF CHANGE ARE READILY APPARENT.

Schools seeking better ways of educating their students must be engaged in the continuous process of experimentation. The change process is often slow, frequently complex, and usually resisted by those who are guardians of the status quo. Experimentation, innovation, and change have, however, come to many schools and the quality schools have been the leaders in this movement. What is not the measure of quality is "faddism." Schools which adopt programs or techniques without careful preparation and adequate attention to the implications of such moves seldom are pacesetters.

Within the structure of a quality school examples of these programs and activities can be found:

After-school study centers
Evening school for potential dropouts
Saturday morning enrichment classes
Advanced placement courses (college level)
Camping
Carrels for individual study
Clothing center for needy pupils
Cultural events with professional performers
Day-care centers for preschool children
Driver education
Educational television
Exchange programs with other school systems
Family education including adult members of family
Field trips
Science laboratories with individual work stations
Sex education
Special curriculum in secondary school for slow learners too old for elementary school
Programmed instruction

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[10] Reproduced from a position paper, "Reference and Source Materials in the Area of Learning Resources Services," prepared by a Committe of the Audio-Visual Council of Ohio for The Master Plan For School District Organization in Ohio, 1966.

School-job coordination
Transportation by school system
Vocational training in new areas

6. SYSTEMATICS AND ORGANIZED EVALUATION AND RESEARCH ARE CONDUCTED CONTINUOUSLY AND THE FINDINGS ARE USED TO IMPROVE PROGRAMS FOR PEOPLE.

"Ignorance of the law" is not considered a reasonable excuse in our system of jurisprudence, and ignorance about the strengths and weaknesses of our educational programs should not be tolerated by society. Tools and techniques are available which can be used to secure reasonably precise information about individual students and groups of students. While there may be some areas which are difficult to measure, the bulk of what is taking place within the schools is measurable and can be evaluated.

Evaluation begins with efforts made to find out as much as possible about the individual child and continues throughout the school's contact with the individual. Evaluation is used by the school for the following purposes:

To secure data upon which an appraisal of the entire school or school system can be based.
To study the effectiveness of instruction.
To provide the data necessary for an appraisal of the curriculum offerings
To provide data for public information purposes.
To assist teachers in becoming acquainted with students.
To secure data upon which to base recommendations for additional school needs.
To secure a gross measure of teaching effectiveness.
To determine possible grouping patterns within a school or school system.
To encourage the staff to engage in self-appraisal.
To develop a continuous pattern of action research.
To facilitate the functioning of the guidance service within the school or system.

The end result of a program of evaluation is not the accumulation of files of dust-gathering test results, but the improvement of the teaching-learning process. Tests, cumulative records, rating scales, interest inventories, sociograms, observations, and all the other techniques which are available to school personnel are of little value unless they are used by teachers to assist students to achieve desirable educational goals.

Evaluation in the quality school must be based upon comprehensive and continuous measurement of all phases of individual development and the objectives of the school. In its highest form, evaluation aids individuals and groups to assume responsibility for their own actions. It is a process that is necessary to promote the psychological security of students and teachers, secure public support and understanding, and examine the progress made by students and teachers. It is considered an action that fosters the growth of individuals as individuals and as members of the classroom group. Evaluation is the means by which an objective, valid, reliable, and usable accounting is made of the progress of a school as students grow academically, socially, emotionally, physically, and spiritually.

As considered above, the concept of evaluation was directly related to matters of curriculum and instructional improvement. This is only a portion of the over-all research needs which exist in a quality school district. Whether we address ourselves to the problems of research within a single school building or a total system, the needs are similar. The quality school and the quality district are constantly engaged in research projects designed to provide more adequate data for making better school decisions. At all levels there must be evidence that school personnel are systematically seeking information about the process and products of their efforts.

The quality school system allocates an appropriate portion of its annual operating budget for the support of research, experimentation, and innovation. No less than one percent of the budget should be available for system-wide research. In addition, the system must provide adequate professional staff and time allocations to allow staff members to participate in research activities.

Evidence of quality also exists when the district and individual schools within the district are cooperating with universities, research and development centers, educational laboratories, state departments, and other agencies in conducting experimentation and research to improve the instructional programs.

7. SUPPORTING SERVICES AND PERSONNEL ARE AVAILABLE TO MAINTAIN AN EFFECTIVE AND EFFICIENT SYSTEM.

The primary function of the classroom teacher is to teach and to assist students to learn. There are, however, within a system many functions which must be performed and are designed to facilitate the major responsibilities of the schools. As distinguished from the services and personnel described in Key 3, here we are concerned with those functions of the system which are largely considered administrative or auxiliary services.

A major reflection of a quality school and a quality system is the extent to which adequate administrative services and highly qualified personnel are available to students and teachers. As education in the United States is presently organized, the chief administrative officer is the superintendent of schools. As an educational leader, the superintendent of a quality district must possess the highest credentials. As a minimum he should have earned a Specialist Degree from an accredited university, and have a background of successful experience as a teacher and administrator. In addition to possessing the ability to work with people in his various roles, he should be well informed about educational matters and should be a spokesman for excellence. The quality superintendent demonstrates a high level of ability to communicate, he knows how to organize for decision-making, he is involved in planning activities, and he knows how to delegate. He is keenly aware of the forces which influence decisions made by Boards of Education as well as school personnel, and he seeks to exercise leadership in maintaining a balanced perspective.

It is often said that an executive is only as effective as the personnel who constitute his staff. In the schools a strong central office staff is essential if quality education is to prevail. All members of the administrative-supervisory staff must possess a minimum of a master's degree and adequate prior experience. In the years ahead it can be expected that most staff members of the central office will possess advanced degree work leading to the doctorate. The number of central office personnel is obviously related to the size of a district. A gross base for appraising a system is that for a system with 1,000 pupils there should be approximately 65 professional staff and of that number at least 15 should be specialized administrative and supervisory personnel.

At the local school level the principal is considered to be the chief educational officer of the individual unit. It is assumed in the quality school that the principal will possess qualifications beyond the master's degree and a prescribed number of years of teaching. The same types of leadership qualities demonstrated by the superintendent and other central office personnel should be apparent in the principal. A quality school of 250 pupils or more should have a full-time, non-teaching principal. For each group of 500 pupils there should be an additional full-time assistant principal or other appropriate staff position. Secretarial assistance must also be provided for the principal and for the teachers. In a quality school a ratio of one secretary or clerical assistant for every 10 to 12 teachers is appropriate.

In all quality schools, teachers are relieved of noninstructional duties by the employment of clerical and nonprofessional personnel. The paraprofessional or teacher aide will handle duties including computing attendance records, lunchroom routines, collecting funds, typing, and other routine tasks.

The quality school system takes advantage of modern data-processing equipment to facilitate the flow of information and to facilitate data maintenance. Grade reporting, schedule making, personnel record keeping, student information, and business functions are programmed through data processing equipment. By ownership, rental, or cooperative arrangements modern technology is utilized for the benefit of the total system.

The need for school lunch programs is related to the expanding size of school districts as well as the need for the school to make a vital contribution to the basic health needs of the students. High standards of food preparation and food processing are maintained. Dining facilities are attractive, well-maintained, and ample in size for the number to be served. Food service personnel are carefully selected, well trained, and adequately compensated.

A quality school system provides or has readily available the services which facilitate the effectiveness and efficiency of what takes place in teaching-learning situations. In whatever ways this function is diminished, to that extent is the quality of a system lessened. The highest quality supporting service, however, is not to be taken as the measure of the quality of the educational program. A well maintained school building is not a reflection of a quality educational program, only a reflection of a quality maintenance program.

8. PHYSICAL FACILITIES CONDUCIVE TO A STIMULATING EDUCATIONAL ENVIRONMENT ARE AVAILABLE.

There is evidence to suggest that facilities do make a difference in an educational program. At best they provide the environment so necessary for establishing an appropriate climate for learning. In the minds of many the facilities reflect the commitment of the community to a quality educational program. Schools should be pleasant, aesthetically pleasing structures with the building, grounds, and site a tribute to the importance of education rather than a monument to a community's apathy.

In *Profiles of Excellence*, a brief paragraph describes the superior building facility:

> "Facilities and equipment adequately support all needs of the educational program. Classroom teachers responsible for using the facilities are involved in all phases of their planning. Elementary schools have special kindergarten rooms, well-equipped indoor and outdoor physical education and play facilities, showers, special health and science rooms, auditoriums, cafeterias with facilities for hot meals when needed, libraries, special education rooms, sanitary indoor toilets, lockers, storage rooms for musical and audio-visual equipment, classroom storage space, instructional materials centers, and well-appointed teacher and administrative offices and lounges. Secondary schools have all of the foregoing plus facilities for homemaking, business education, art, vocational and general shops, music, drama, and student activities. School spaces are flexible and adaptable to community use. All facilities are designed with particular attention to safety, lighting, color, heating, and cooling, ventilation, acoustics, dimensions and aesthetic appearance."[11]

A major measure of the quality school is found in the extent to which facilities are provided for library usage. Standards established by the American Library Association and the American Association of School Librarians are guides for the establishment of an adequate library facility and resources. Ample space exists for a book collection of 6,000 to 10,000 volumes where fewer than 1,000 pupils are enrolled or at least ten books per pupil where the enrollment is over 1,000 pupils. Space exists for at least one full classroom group of students to occupy the library at one time. Office space exists for the librarian, and working space is available to handle the many routines required in a library.

The quality school of the immediate future will also contain an instructional materials and equipment center or an educational media center. Space will be provided for the full utilization of films, educational television, taped programs, programmed instruction, and the whole range of modern instructional techniques. While each classroom will be equipped to handle many of the new tools, there is a need for space where materials can be processed and where teachers and students can develop their own materials. The multi-media approach to education is a reality in quality schools.

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[11] *Profiles of Excellence* (Washington, D. C.: National Education Association, 1966), p. 82.

Under all conditions standards of cleanliness and maintenance are uniformly high. Safety checks are considered a part of a regular routine and the concept of preventive maintenance is visible. The quality of maintenance reflects the quality of the school district.

9. COMMUNITY SUPPORT AND UNDERSTANDING ARE READILY EVIDENT.

It should now be clear that the school as a social force does influence the nature of society; what is becoming increasingly clear is the effect the community has upon the education which takes place within the school. In the Coleman report *Equality of Educational Opportunity* there is definite evidence that the home and the community are major factors in the differences of educational equality which exist throughout the United States. It becomes clear that if quality education is to exist the school may have to overly compensate for the deficiencies which are created by homes and communities.

Community support and understanding manifests itself in many ways. The existence of a highly qualified Board of Education is perhaps the best indication of community interest in the schools. Since Boards of Education determine policy, a quality school system can only exist if Board members are highly qualified. Talented and able community leaders are willing to seek office as Board members and elections are important community affairs. The Board respects the importance of community opinion, and appropriate citizen committees are appointed. Board meetings are open to the public, and public hearings are held before action is taken on major matters of public importance.

Community support manifests itself in many ways in a system where quality education is considered a desirable goal. The existence of a strong parent-teacher organization is positive evidence of community support of the schools. The nature of the programs, activities, and attendance at meetings reflects the earnest concern of the community in affairs of the school.

Support for the educational needs of a community are derived from actions taken by school personnel. A quality school seeks to keep the community informed and seeks to be informed about the community. The interests, needs, problems, hopes, and aspirations of the people in the school area find their way into the school's channels of communication. The school attempts to be responsive to the community by program adoptions and innovations. The school seeks to take into account community soundings with a balanced approach to what is best for the students.

Programs of public information are readily available from the quality school. Reports ranging from those pertaining to individual students to all-system projects are prepared and distributed to the appropriate audiences. The public is given the facts without distortion but with explanations. Shortcomings are brought to the attention of the community as well as are successes. In the quality school an open-door policy prevails because the community is a partner seeking a quality educational system. All forms of media are used to help present a factual analysis of what is taking place in a total school system. Athletics share prominence with art exhibits and debating teams. The existence of a strong and reliable program of public information is a positive measure of quality.

10. ADEQUATE FINANCIAL SUPPORT TO PROVIDE FOR THE ESSENTIAL INGREDIENTS OF QUALITY EDUCATION IS MADE AVAILABLE.

Quality education cannot be purchased at bargain basement rates. Educational costs can be expected to rise in the decade ahead because the total enrollment of the schools will continue to increase, pressures for reduced teaching loads and smaller classes will have an impact, instructional salaries will show major increases as a result of professional demands, expansions will take place in pre-school, summer, and adult education programs, and construction needs will still require renovation of old buildings and the building of additional new facilities. Not taken into account are the effects of inflation and the need for additional expenditures to secure quality education.

It is difficult to identify a precise cost figure per student to insure quality education. Obviously the factors of size of school district, program, teacher-pupil ratio, resources of the community, and a willingness to support education will all influence the extent to which an adequate cost per child figure can be established. It is also obvious that in the years ahead a combination of local, state, and federal resources will be utilized to pay for the cost of education. The most common calculation of cost per child serves only as a guide for a school district seeking to develop a quality education program. It is quite possible, as was done in the Job Corps, to spend $6,500 to $9,000 in support of a specialized educational program. It could be assumed that such cost per student would be necessary under some conditions.

A realistic approach to the problem of adequate financial support depends upon the nature of the program to be achieved and the willingness of society to pay for excellence. It is unlikely that a cost figure of less than $750 per student can result in a quality educational program. It is more likely that during the period from 1968 to 1975, the cost figure per child will range from a minimum of 750 to $1,500. It is assumed that these figures do not take into account the element of sparsity of population. If sparsity is a factor, the costs will be even higher. These figures may not appear to be realistic because they are too high or too low; however, if a school district is to provide quality education, the cost per pupil will have to be at the higher levels of the range which has been identified.

Since education represents an investment in people and in society, and since there is ample evidence to indicate that the investment is a sound one, we will need to be willing to spend at a much higher rate than ever before to insure quality education. If at the local, state, and national levels we could recognize the investment principle as it is associated with education, we would then begin to realize that the greater the investment, the greater the return to individuals and to society.

A concept of quality education carries with it the implication that our society wishes to provide for all people the fullest opportunity to achieve at their maximum potential. The United States has made a spectacular contribution to the civilization of the world and this has in a large measure been accomplished by the unique function of a public school system open and available to all. While the system, at the present time, is undergoing intensive appraisal and corrections will be made, the essential components for success are available. To seek the goal of quality education for all people is a dream yet undreamt by most of the nations of the world. Our opportunity is to establish a new baseline for educational systems throughout the world. Just as the concept of universal free and public education has and is serving as a baseline for many nations of the twentieth century, the leadership of American education can only be enhanced as we check ways and means of improving the quality of our educational system so that we may improve the quality of American life.

PART III

MEASUREMENT

The measurement of quality is not in terms of buildings, motion picture projectors, teacher aides, or home room coffees, but in the performance of the product. While there appears to be substantial evidence that the level of quality of a school or district is directly related to the extent to which the conditions described earlier are available, the burden of proof pertaining to the level of quality is found in performance measures.

1. Documentation shows the continuous progress of *all* students in all fundamental areas.

2. Retention rates are high. Ninety to ninety-five percent of all young people from ages five to eighteen must be enrolled in a formal educational program.

3. A high percentage of the student population continues on with education.

4. There is a substantial reduction in the incidence of underachievement among pupils and a corresponding increase in pupil achievement.

5. The average daily attendance pattern is consistently high and over the years actually shows an improved pattern.

6. Five, ten, fifteen, and twenty-five years after leaving school, individuals show a significant increase in job earnings, job satisfaction, and rate of promotion.

7. Citizenship responsibility is evident in the increasing number of individuals who vote at all elections.

8. There is evident community support for community projects such as bond issues, urban renewal programs, and cultural activities.

9. The community is relatively free of discriminatory practices, and continuous efforts are made to eliminate those areas of discrimination which still exist.

10. Adequate support exists for the community library facilities and the rate of utilization increases each year.

11. The unemployment rate is insignificant and the economic well-being of the community is high.

12. Delinquency rates and divorce rates are relatively low.

It is difficult to evaluate the quality of an educational program on the basis of paper and pencil achievement tests. Where a community wishes to strive for quality education the evidence collected must indicate that the goals described in the earlier portion of this paper are being achieved.

Adequate measures for each of the ten contributory keys to quality must also be taken and studied in relation to the performance sought. The mistake should not be made, however, of contributing quality education to a school or school district by virtue of the fact some of the factors exist at a high level. High salary levels for teachers, modern school buildings, and a library resource center do not guarantee quality education, but they are certainly indicative of the concern for a school district in achieving the goals of quality. A mistake should not be made in measuring only the contributing factors to quality without attempting to evaluate the performance which we have reason to believe is attainable as the result of a program of excellence.

CHAPTER 4

THE RELATIONSHIP OF CURRICULUM TO SCHOOL DISTRICT ORGANIZATION

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Part I

THE PROBLEM—CURRICULUM IN OUR CHANGING SOCIETY

The Setting

Today as never before in the history of education the word is change. We are living in the "hydrogen age." We are taking the first halting steps to outer space. Our children are growing up with television as a way of life; comfortable in the knowledge that man can survive in space; accepting "the pill" as a normal accoutrement—and the older generations look on in disbelief. In this day of cybernetics we can no longer afford the luxury of the Model T educational program when we need a Gemini model in wide orbit. Recently George B. Leonard and John Poppy—*Look's* West Coast Office—were quoted as saying:

> Education's job will be to help young children learn in one third of the time now spent on it, through computers and programs, such things as spelling, reading and figuring. They will also learn that such knowledge is tentative.
>
> The remaining years of childhood and adolescence will be devoted to exploration and to flexible, individualized learning activities, not just in traditional subjects but in fields which do not even have a commonly accepted name today.
>
> By 2000, or before, "teaching" as it is now commonly accepted will be dead, and the job of an educator will be transformed into that of a "facilitator"—"one who creates a rich, responsive environment that will elicit the most learning and change from the student." There won't be any compulsory education, but educators will have to make their material relevant to students' needs "or they won't get any students."[12]

The population today has not only moved to the city, but it is constantly moving from city to city. Fewer students spend their entire educational career in the same system. This fact, coupled with the necessity of acquiring a higher level of education today, causes serious complications. Each school district has a part in educating future workers for the entire country; each business and each metropolitan complex has a stake in what occurs in school districts throughout the land. Yet the local district remains responsible to its local patrons, not to the remainder of the nation. Hence, a dichotomy develops between the two.

The editors of *Education U. S. A.* recently stated that within fifteen years approximately 80 percent of this country's population will live in some urban area of 500,000 or more.[11] We are constantly being told by many sources that there is increasing need for education throughout one's lifetime; that more leisure time will cause adults to seek different, more satisfying ways of using it, hence a need for some type of education; that students will continue to remain in a formal educational program longer; that the new technology will require more education than we have known in the past; that the population is regrouping with more of the elderly living longer and with more younger children, both groups having need of education. Shane[28] likens the importance of that which is presently taking place to the development of printing and to the Industrial Revolution. These few examples demonstrate the rapid change now confronting us and the significance of education for the future.

The School in the Setting

When the curriculum specialist turns his attention to the task, he finds wide variations of suggestions and great discrepancies in programs presently existing. Furthermore, he finds almost as many self-styled experts willing to suggest curricular alterations as he finds critics objecting to current practice. He is aware of several "basics" as he faces this problem of change.

First, the cliché "changing the curriculum means changing people" gets at the very heart of curriculum development. Down through the years research has repeatedly demonstrated that those innovations, modifications, and revisions which were lasting were those which were significant in the minds of people and were those which people became committed to maintain.

Second, it becomes more apparent that nothing less than the K–12 concept is acceptable today. It is quite likely that within the very near future the K–12 concept will be expanded in both directions to a preschool-adult concept. Research is now indicating a distinct need to work with children at a very early age. We are also realizing that adults continue to need some kind of educational experiences into their retirement period.

Third, the increasing knowledge available in all disciplines and the corresponding attempts to find ways to minister to these "shifting truths" have caused subject specialists great concern. As the content is reviewed and revised, more tends to be placed earlier in the curriculum. It is imperative that concepts, generalizations, understandings, etc., build on what was previously studied and move to other, more sophisticated, but directly related material, if the learning process at all levels is to be satisfactorily achieved. Such a change in emphasis demands highly qualified teachers, thoroughly competent in their disciplines and in techniques, to properly serve their students.

Fourth, one approach would be to state that the optimum curriculum is one which best meets the needs of the students within the district. Obviously this is akin to favoring the flag and motherhood; we are all for it, but each of us views the process somewhat differently. The means of attaining such a goal sometimes present difficult choices.

The curriculum offerings, i.e., the program of studies, should be sufficiently diversified to provide a broad choice of alternatives for each student. Traditionally small schools have been able to provide the minimum number of college preparation-type courses and very little else. In addition, lack of staff has caused many teachers to (1) teach an excessive number of varied courses requiring many separate preparations and/or (2) teach out of their field of specialization. Often such schools lack sufficient instructional materials or adequate facilities to conduct properly the few courses included.

Not only should every district provide opportunity for students to prepare for later matriculation in higher education, but the instructional program should be continually improved upon so that the local graduate can successfully compete with other graduates from schools throughout the country. Every district should resist the snob appeal of the college prep curriculum, however, offered exclusively to the neglect of other equally important parts of a well balanced program of studies. While there is increasing interest in higher education on the part of the general public, thinking individuals realize that college is not designed for all. Many students, due to lack of native ability, the lack of desire to achieve in the academic framework, limited finances, or with life goals outside the academic periphery, evidence little or no interest in continuing their formal education after the twelfth year. Schools should give thoughtful consideration to the fact that this large group does exist. Care should be taken to insure that all students' needs for becoming active, productive, self-supporting members of society are being met.

Regardless of the eventual thrust of the local district, the demands of today's increasingly complex, highly technical society leave little room for the high school dropout. Furthermore, in the desire to reach and maintain excellence, higher education, which finds more students demanding entrance than ever before, gives short shrift to the low or slow achiever. No longer can the local district, particularly those small rural ones, educate specifically for life in the immediate community. Since the majority of rural students can be expected to spend their productive lives in some metropolitan area, it becomes imperative that their public schooling should recognize and relate to such a future. McLure says, "One out of 5 rural youth will find a livelihood in rural areas. The others will have to prepare for a living in an urban community. This situation places a dual responsibility on the rural school, to help those who will continue living in the rural areas and also to assist those who grow up in this environment, but transfer to urban communities."[22]

A variety of occupational programs seems desirable in this respect. Students need as a minimum those skills and backgrounds necessary to achieve a job-entry level of performance. Usually this is construed to include a level of achievement in the basic subjects commensurate with upper elementary school plus a grounding in some general area of specialization to enable the individual to become competitive on the labor market. For many years this has been confined largely to the area of business education. Recently the press of society has caused the inclusion of various occupational programs directed toward the service areas and sometimes toward specific occupations within the general umbrella of the trades. However, the prudent curriculum director will hesitate to attempt to prepare students for a specific, narrow job category, recognizing the obvious weaknesses in such endeavors. Instead he will strive to provide a variety of experiences pointed towards broad occupations, thereby providing students a wider latitude, choice, and general saleability when first entering the labor market.

Another major concern of the balanced curriculum is that directed towards meeting the needs of the atypical student. Prevailing practice includes special education programs for students retarded or handicapped in some manner, either physically or mentally. In most instances such programs have been considerably more expensive to mount and operate than the regular program. Because of the costs involved, little is done by local districts without outside aid and management. Some districts have turned special attention to the problems of the talented student and have made deliberate efforts to challenge those individuals in ways impossible in the regular program. As a rule, however, these "gifted" students receive less special attention than that paid the retarded group.

In response to these and other significant educational problems, today's professional must be better trained than ever before. It soon becomes evident that specialization has hit education even as it long ago hit industry. The line administrator cannot be expected to be an instructional expert also. The curriculum specialist, either the generalist or the subject specialist, must be called upon to deal with the technical problems involved in the curriculum and the accompanying instructional program.

The Curriculum

The curriculum has been defined broadly as all experiences which students encounter that are under the auspices of the school district. In a much narrower concept the curriculum is sometimes viewed as the course of study, that which is recommended to the teachers for their usage. Many laymen consider the curriculum the "stuff" of the instructional program, the subject-matter content actually utilized by the teachers. Some think of the curriculum as the program of studies—that detailed list of offerings, both elective and required, which all students find available. As the term is used within this paper, it will include all of these but primarily should be construed to mean all those experiences for which the schools are responsible.

The best curriculum is never static; in fact it is constantly in a state of change. As the press of new knowledge moves into the various disciplines, the classroom teacher is confronted with increasingly complex questions of what to include and what to omit. One solution is to move towards the teaching of concepts, understandings and generalizations with less attention to any special, fixed group of facts. Such an approach gives the individual instructor considerably more maneuverability than when he must rely entirely upon the imparting of certain facts. Certainly if the *Look* statement can be accepted, this solution must be carefully studied as a prime necessity of future survival.

Summary

The preceding remarks have attempted to describe the situation presently existing in our society. Further, they have attempted to indicate some of the directions in which a rapidly changing society seems to be thrusting education. This, then, becomes the "real world" for the curriculum director as he attempts to provide the most meaningful education possible for all students. The curriculum director, more than any other one individual within the district, must have this "big picture" clearly in focus as he continues to study the various bits and pieces of the curriculum.

With the implications of these societal pressures and restrictions in mind, let us now turn our attention to the process of curriculum development.

Part II

THE PROPOSED SOLUTION—PROCESS OF CUPRRICULUM DEVELOPMENT

The Program Needed

As the individual district attempts to provide an adequate curriculum to meet the needs of its students today, what considerations must be given to the implementation process? How does the curriculum director or the director of instruction approach his task? Let us first examine some components of the program. Later we can consider the various individuals and services required to produce and maintain the desired program.

First, the process of curriculum development must be examined. Is there a method which ensures satisfactory progress, which gets at the basic issues involved? A wide variation in attacking such problems actually occurs from district to district as well as within individual districts. Taba[7] has outlined what she considers to be the necessary steps as: diagnosis of the needs, formulation of objectives, selection and organization of content, selection and organization of learning experiences and, finally, determining what to evaluate plus the ways and means of doing so.

Second, as the process is carried out, it is assumed that a constant quest for improvement is taking place. Obviously, if the proposed change does not result in some improvement, there is little or no justification in deviating from the existing pattern. Unless particular attention is paid to the need for and methods of research it will be quite difficult actually to determine growth. A systematic evaluation will keep the curriculum director informed of the progress being made and the resultant learning level.

Third, it is becoming increasingly evident that the clearly structured objective can become an important tool in curriculum development. Bloom's[3] work with the taxonomy of educational objectives has produced considerable insight into the improvement of these curriculum guideposts. Educational objectives, clearly stated in behavioral terms, tend to provide succinct directions toward statements of the thoughts, actions and/or feelings considered desirable for students. As these objectives can be translated into specific statements of those characteristics desired of students, it becomes more possible to evaluate adequately the progress of the student and the success of the instructional program. Hence as specific objectives are recognized, it becomes possible to design and prepare educational activities and learning experiences which can achieve these objectives.

Fourth, the most important single factor related to the process of curriculum development centers around that which is loosely regarded as inservice. Before an innovation, whether major or minor, can be mounted, consideration of the proposed change must be given carefully by those staff members who will be involved. If a general concensus is lacking or cannot be developed, the change will likely sail on troubled waters. As a new program is implemented, other staff members become involved, new persons are employed to replace departing members, and the new personnel must be oriented to the program. Whether the initiation or maintenance factor is primary, both are essential and both fall under the province of inservice. In addition, attention must be given to the problems involved in working in groups. Since both individual and group involvement is extremely important, provision is needed to insure the best possible rapport between and within the various groups involved. Special attention must be given to free individuals from whatever rigidity they may have which might tend to negate the effectiveness of the curriculum development project being attempted. This also comes under the aegis of the inservice mantle.

As we examine the organization required to deal effectively with the curriculum and the resulting instructional program, the following model may help the reader follow the discussion through the various spiraling sequences.

THE ORGANIZATION NEEDED FOR EFFECTIVE CURRICULUM DEVELOPMENT

Throughout the development of American public education, consideration has been paid to the curriculum. From time to time this attention has resulted in some major breakthrough and, as a result, progress has occurred in halting, jerky stages. For example, the academy replaced the Latin Grammar School and was in time replaced by the present-day high school. The various commissions and committees at the turn of the present century helped alter the direction of the curriculum as they developed the Seven Cardinal Principles and the Carnegie Unit.

Today we are faced with major curriculum revision arriving in the form of prepared packages. Mathematics and science in particular have moved

Model of Organizational Structure Needed For Adequate Curriculum Development

	Organization	*Staff and Personnel*	*Services Data Processing, etc.*	*Finance*	*Research*
Attendance Center	Minimum	Limited	Limited	From Administrative District	Some
Administrative District	Central Staff	More and Better Trained	Support Attendance Centers	District-wide Base	Program-wide
Area Level	Added Specialists	More Experts	Interrelated Network with Districts	More Wealth	Diversified, More Sophisticated
State	Added Services	Added Experts	Interrelated Network with Areas and U.S. Office	Diversified Taxing	Coordinate and Disseminate
Multi-State	Cooperative use of Specialists	From Cooperating States	Interrelated Network of States and U.S. Office	Compacts	Inter/Intro-Regional Problems
Federal	Specialists	Specialists	Coordinating	Categorical	Support Disseminate

very emphatically in this direction. Other areas such as foreign language, English, and the social sciences have followed suit, though less rapidly. The impetus for preparing these curriculum packages, in the main, has come from outside the regularly established groups who in the past have usually concerned themselves with such matters. Instead scholars and workers from within the discipline itself have provided the leadership and also most of the know-how.

At the same time big business has recognized the vigor of the educational bank account, swelled with Federal funds, and has moved quickly to provide new instructional supplies and equipment—the "hardware" and "software" needed to function satisfactorily today.[29] All indicators point toward a greatly expanded utilization of such material in the future. While this means more money will be necessary, it also indicates that an improved professional expertise must be developed. The classroom teacher today must have much more knowledge and skill than was necessary merely one generation ago. The teacher of the future will find that he must be even more knowledgeable to remain adequately prepared.

THE STRUCTURE OF PUBLIC EDUCATION

A brief examination of the various levels within the organizational structure seems appropriate at this time. At each level curriculum problems are confronted in a variety of ways by the various individuals and groups, both lay and professional. As indicated by the table on page 65 a spiraling effect can be traced through the various levels.

Attendance Center

A carefully developed plan should be formulated by those working at the "grass roots" of the educational structure, the attendance center. It is at this point that the plan eventually selected must actually be implemented. Several guidelines might be worth considering here to insure maximum performance and cooperation among the various individuals and groups.

First, provision should be made to establish a curriculum policy-making body for the attendance center, a curriculum council. Rotating membership would include someone from each of the major groups or areas of the instructional program. The council should be concerned first with curricular problems primarily affecting the center, and second with curricular problems involving the district. The council should be concerned with establishing open communication between each classroom teacher and the administrative district curriculum office. It should provide an adequate forum for individual teachers interested in innovating or merely questioning existing practice.

Second, the individual staff members must be adequately prepared. In today's market this calls for advanced graduate work for administrators and work beyond the bachelor's degree for almost every member of the teaching staff. As the search for better staff utilization continues, it is quite possible that the "paraprofessional," advocated by Trump and his associates,[8] will prove a major breakthrough to provide the necessary additional manpower, though with limited training. The combination of increased demand for personnel plus the need for constantly expanding professional expertise has placed a great strain upon education today.

Third, not only must staff members be adequately trained, but they must also be assigned to teach in the areas of their major interest. For the secondary teacher this means a limited number of preparations within his major field. For the upper elementary teacher this is coming to mean much the same. Because of the increased demands on the teacher by the various disciplines today, the rapidly increasing knowledge available, the greater use of electronic aids, etc., it is almost an impossibility for the teacher at approximately grade four and above to remain sufficiently "expert" in all disciplines.

It is crucial to the educational future of students that their teachers during these earlier years, thoroughly understand the intricacies of the discipline taught. Anything less provides an inadequate instructional basis for future study and tends to place the student at a definite disadvantage during his subsequent educational endeavors. The profession is now aware of this emerging need, and teacher education programs are being revised accordingly .The primary teacher will remain in a situation more nearly resembling the typical self-contained classroom and will be expected to handle most if not all subjects as in the past. The intermediate teacher, however, is likely to find herself in some sort of departmentalized arrangement. Inasmuch as she goes beyond teaching the "educational tools" and introduces the student to the disciplines, the intermediate teacher must have a clear understanding of the discipline and its special method. Such a competence can only be obtained by immersion into the discipline itself. It becomes readily apparent that such in-depth knowledge will require the teacher to limit the scope of her study. Hence, the teacher will need something akin to a subject major in one or two areas most appealing to her. Through careful staff selection and assignment, all subjects can be covered with teachers well prepared to introduce students to the various disciplines.

Fourth, there must be a constant educational ferment taking place at the attendance center. It is extremely important that interplay or interaction takes place among the various members of the staff. The best curriculum will be found where such interaction is occurring and where a careful re-evaluation of the existing curriculum is also occurring.

Fifth, there should be a continuous attempt to provide for more effective individualized instruction. Recently the profession has come to recognize the importance of individualizing or humanizing the curriculum in ways heretofore not thought possible or necessary. Modern technology has now provided education with the means to accomplish such individualization. Improved curriculum seldom occurs without supporting supplies and materials. Teachers must have available these necessary items. Individualized instruction requires more than schools have previously provided.

Sixth, at the attendance center it is very important that all teachers have the opportunity to participate in the various stages of the curriculum development process. Increasingly classroom teachers are insisting upon this involvement as a basic working condition. Furthermore, such participation cannot be relegated to after hours as has often been done in the past. Administrators must provide time to teachers within the normal working schedule to make this participation possible.

Seventh, it is imperative that the teachers and administration at this level have sufficient outside assistance to carry out their curriculum plans in the best possible fashion. This assistance should include a variety of experts, skilled in their specialty and also in working with both students and adults. Such expertise should be available at the pleasure of the building administrator to assist in providing a model instructional program.[22] The attendance center, then, becomes one of the most crucial components of the curriculum development team. If it fails to function adequately, the total operation will be weakened proportionately. Adequately prepared staff, properly placed, with sufficient time to function and supported by the necessary instructional supplies, materials, and professional expertise are a must to provide the best curriculum.

Administrative District

The individual attendance centers representing the various portions of a community, and operating under a single board of education, may be identified as the administrative district. The district should contain sufficient student population to provide the various supporting staff members which are necessary for a sound, balanced curriculum coupled with a commensurate instructional program. Kreitlow found that the reorganized district "attracts a higher level of teacher who has a higher motivation for self improvement. Also after attracting this higher level teacher, the reorganized community provides the leadership for self improvement to a greater extent than the non-reorganized community."[19] In order to provide the best possible curriculum for the district as a whole, it is important that sufficient central staff be available to provide necessary leadership and expertise. Even if the various attendance centers had good curriculum development procedures, it would not necessarily follow that the total district program could be acceptable without the assistance of central office personnel.

Leadership within each of the subject disciplines should be provided by an instructional supervisor, highly skilled both in method and in content. This individual, operating from a staff position rather than line, should be able to coordinate the endeavors of the various staff members representing that discipline. Further, he should be able to bring the latest research findings, complete with implications for his district, to the attention of the teaching staff. He should be sufficiently grounded in good research practice to be able to provide the necessary expertise to assist those teachers within his discipline.

There is also need for an administrative district curriculum council. This body, made up of representatives from the various disciplines and attendance centers, as well as central district staff, should serve as the policy-making group for the district curriculum program. At this level interaction between individuals from throughout the district can take place; ideas originating at the classroom level can be considered and disseminated; curriculum decisions affecting the entire district can be made.

In addition to the instructional supervisors, the central staff should include a variety of supporting services necessary to the success of the instructional program. As these special services are being examined in depth by other consultants, only brief mention of them will be made here. It should suffice to say that these services are extremely important to the total curriculum.

The personnel operation, under the direction of an assistant superintendent, should recognize that one of its basic purposes for existence is to supply the best staff possible throughout the district. In the competitive market today this usually means that most of the larger administrative districts must cover wide sections of the country in their recruitment endeavors. Staff members so selected, however, bring to the district a wide background representing all sections of the country and the district is stronger for having them.

Pupil personnel services are necessary to the proper functioning of instruction. Again the reason for being is to provide basic support for the instructional program of the administrative district. Various staff positions include nurses, physicians, psychologists, dental hygienists, social workers, speech correctionists, guidance counselors, and attendance counselors. As some of the operation becomes more automated, technicians are being added and will continue to be added in the near future.

The function of research in the past has been quite limited within the administrative district. In fact, this has been one of the weakest links in the entire educational chain. Today, however, there are more funds going into education research than ever before, and the level of research is rising appreciably. As educational research becomes more sophisticated, and as more use is made of the computer, greater advances will no doubt be possible in the instructional program. Through the use of the electronic aids now available to the district, the detailed pulse of the curriculum can be taken as often as necessary to determine the success or failure of any given piece of the instructional program. The computer is also emerging as an important teaching tool for the classroom.

One of the basic functions falling to the administrative district is that of inservice education. As new curriculum programs are mounted, inservice programs are necessary to "tool up" the staff to handle the changes. As the primary curriculum thrust is maintained, and while new staff members replace original members who have departed, an inservice program must be provided to maintain the earlier level of performance. Inservice becomes the vehicle to assure continuity of curriculum and level of competence of instruction.

The view is held by many educators today that the administrative district with a strong instructional program is the district vitally concerned with a far-flung inservice program. New teachers come from the teacher training institutions, in many instances with minimum preparation. They need much assistance within the district to ensure their professional development. Teachers who are more experienced also need assistance, but of a slightly different type. The content has been changing so rapidly within the disciplines that it has become almost impossible for an individual to be aware of current developments without devoting full time to the task, something which the classroom teacher obviously cannot do. The district must recognize this danger and provide adequate inservice opportunities, implemented by the instructional supervisors. In addition, as new curriculum programs are designed and as innovations are tested, the staff directly involved must be thoroughly conversant with the changes and prepared to modify old ways to accommodate the new. Those staff members not directly involved must also be advised of the changes taking place lest they become apprehensive and morale drop. All these require special types of inservice activities which become the responsibility of the district.

In summary, the central staff of the administrative district plays an important leadership role in providing for, and then in maintaining, a satisfactory curriculum program. Curriculum development cannot take place without the active cooperation of the teaching staff; neither can it achieve outstanding results without the expert leadership of the central staff, including the curriculum director and the instructional supervisors. Various support services are vital to the success of the curriculum, including those provided by the offices of personnel, pupil personnel, research, and data processing. A district-wide curriculum council should be the vehicle utilized for overall direction of the curriculum development process. Finally, throughout the district a continuous inservice program must be mounted.

Area Level

The body here identified as the "area" is a recent addition to the educational scene and actually is still in the formative stages. It operates somewhere between the district and the state level. It thus replaces the county organization, assumes some of the former role of the state, and fills a void in the present educational structure with a variety of services heretofore not available. It can provide program and service impossible to maintain by the administrative district due to limited members involved or to limited funds available or both. A representative elective board of education makes it more responsible to the people it serves than can the state agency.[23]

The area office should be staffed with top-notch subject matter specialists, available on call, to assist local districts throughout the area. Expensive expertise impossible to employ within a single district can be retained at this level and can be used to serve all the districts as needed. These staff members could bring to the local scene the latest thinking from throughout the country on any given aspect of the curriculum. They would be competent to advise on trends to be considered locally, pitfalls to be considered, and the best ways of preparing research designs for local and area implementation. They could provide the leadership to capitalize upon the combined strengths of the various districts in the effort to strengthen various components of the curriculum and the instructional program.[22]

One recent service for education which is emerging because of the current technological revolution is in the area of data processing. The various pieces of highly sophisticated electronic equipment, particularly computers, now available make much possible that was previously impossible. For example, complete item analysis of a standardized testing program can be provided to districts as well as to the individual teachers involved. Where such information is employed in a positive way to strengthen the total curriculum, a great service can be realized. The cost of the larger, more efficient pieces of electronic equipment is prohibitive for small districts and even questionable for many larger districts. The area level, however, can profitably and efficiently make use of this equipment and can provide many needed services to the local districts which would not be available otherwise.[10]

The combination of expert staff plus adequate facilities and equipment presents a tremendous opportunity for much-needed educational research. The area itself would represent a goodly population. The leadership provided by the area staff could produce some highly significant findings for the curriculum which under presently existing arrangements are not available. Such large scale, in-depth research could produce results which could more than justify the expense involved, not to mention the various other services thus made possible as by-products.

At the same time, through the cooperation of the various independent districts, larger scale curriculum development could serve as the necessary stimulant to such a massive endeavor. A wide variety of high quality curriculum publications could be produced and distributed at the area level. Such activity would minimize unnecessary expense resulting from a duplication of effort and of publications, and through the use of more efficient production methods. It would also provide high quality consultant service to prepare the materials while still involving a maximum number of individuals at the local classroom level.

The area staff occupies a unique position in respect to inservice education. Because many districts can become involved, a more efficient package of inservice programs can be mounted. Some relatively expensive and highly specialized programs, which could never be provided by individual districts, are possible through such a joint effort. Sufficient variety is possible within the area to service the needs of most if not all staff members from the cooperating districts. Expensive, outside consultants who would be unobtainable by individual district faculties can be provided on an area basis. As new curriculum publications are produced and made available to individual teachers, adequate inservice programs can be initiated at the proper time to insure maximum acceptance and usage of the materials.

A variety of contractual services can be provided on an area basis at a minimum cost to the individual district. Those specialized services are often very expensive and difficult for the individual district to maintain. Such items might include a computer-involved information district to maintain. Such items might include a computer-involved information retrieval system, an extensive library of video tapes, a complete audio visual service, and the services of some specialized personnel such as psychiatrists, etc. Uslan recently stated:

> Regionalism is no longer a question of stop or go, but rather how shall it organize. Purposes need to be clarified and a realistic fiscal plan must be developed. Regionalism is also a natural vehicle for reconciling a systems approach with all of education. . . . Increasing educational expenses are outdistancing taxing powers of local governments. Alliances of federal, state, local, and industrial educational organizations, under the organizational shelter of educational regionalism could result in the pooling of large sums of money and a reduction in the duplication of effort. Properly developed, neither local autonomy nor individual educational opportunity need be limited. (p. 64)

In summary, the area level is emerging as a replacement for the ofttimes outdated county organization. It better provides some services previously obtained from the state and some previously unavailable. It can provide efficient use of data processing equipment, too expensive for individual districts to obtain, and it can provide highly qualified staff to assist the local districts in curriculum development, improvement of the instructional program, more sophisticated research activities, and improved inservice programs. A functioning area staff will greatly strengthen the instructional offerings of the various participating districts.

State Level

Legally the state is the responsible agent for the educational program operating within its borders. As such it will have a continuing interest in the activities taking place at the district and the area levels, and will no doubt continue to circumscribe such activities according to what it considers minimal acceptable standards. Inasmuch as the costs of education are continuing to increase each year, the state finds itself hard put to provide adequate financial assistance to all the local districts. This is especially true with those districts unable to raise the minimum funding locally. Experience has shown that whenever the state is unable to accomplish that which the public generally feels must be done, the federal government will provide that assistance. Not only must the state renew its efforts for providing financial support at this time, but it must also look carefully at the curriculum and instructional program throughout the state.

Staff at the state level should include curriculum and instructional specialists who are intimately involved with, and aware of, activity in the U. S. Office of Education and the various state departments of education on the one hand, and the activities and concerns of the various areas within their own borders on the other hand. It should be available for advisement to districts and areas within the state upon a wide variety of matters including sound curriculum, promising trends, various instructional concerns, as well as sources of potential research and innovation findings. In addition, it should provide leadership to encourage the districts to strive for a higher level of instruction.

The electronic data processing capability available at the state level should complement and supplement that existing in the area offices. Such a network throughout the state would make possible massive research and development never before known. It would enable the state to identify and help shore up instruction in the weaker districts more readily and more effectively. It could better give assistance to local districts attempting to improve their instructional effort. It could also provide research leadership on a scale never before attempted, the results of which would be fed back to the many local districts for immediate consideration. Throughout all its endeavors it could and should emphasize quality programs.

In summary, the state is given the responsibility for education within its borders. In carrying out this responsibility it must continue to keep pace with the new potential now available through modern technology. It must supply advice, assistance where requested, and direct leadership to the districts and areas in a continued effort to upgrade the curriculum and the instructional program. Computers and expert staff can combine to produce large scale educational research of great significance to the local districts. A strong push toward quality education must continuously be made at the state level.

Multi-State Level

The changes recently taking place in education and the increasing complexity of the entire operation seem to be forcing us to consider a new grouping. Several states with like problems and interests may be forced to band together to assist each other in the solving of mutual problems. Specialists supplied by, and representing, the participating state groups can function, sometimes as a standing committee, sometimes on an ad hoc basis.

Such a multi-state involvement could result in several benefits. Joint assistance would result in a stronger capability than would be possible on an individual basis. Some technical capabilities are prohibitive, cost-wise, to most states at the present. A cooperative, innovative effort could provide the direction for others to follow and this could result in an improved curriculum and instruction.

Provisions could be made at this level to supply a massive research capability from all standpoints—talent, materials, equipment, and subject populations. At the same time the existing structure, from district level up, could be utilized to communicate and disseminate findings so that existing program modification would occur without the traditional time lag.

In summary, the complexity of education today and the new developments in technology make practical a new effort—the multi-state operation. The pooling of available talent can provide greater strides in research, innovations, and an improved instructional program.

Federal Level

From the early days of this country there has always been some federal assistance provided to education. Currently this assistance has increased at a rapid rate and seems likely to maintain its flow. Local districts find themselves on the horns of a huge dilemma today. They desperately need financial assistance as they attempt to keep a balanced budget. Rapidly increasing costs and an unrealistic method of financing make this extremely difficult to accomplish. The new federal funds become even more attractive under such circumstances. Suddenly the method of categorical aid used to distribute much federal money throws the local district budget out of balance and forces major changes within the district.

This method of financial assistance will continue to guide the curriculum and result in a considerably modified instructional program, more acceptable at the federal level, if the local states do not provide sufficient financing. Recent discussion centered on national assessment may be cited as an example. The premise of national assessment is to identify those districts, areas, states, etc., which do not have minimum instructional programs. Once identified, federal assistance can be provided to bring the substandard units up to an acceptable standard. In the same manner that a chain is considered only as strong as its weakest link, the security of the country is considered to be weakened by permitting substandard educational programs to continue.

There are many services which can best be provided by the U. S. Office of Education. Much top quality leadership can be made available to all states. Better coordination and communication can be provided through a central clearing house than when everything is left to chance contact. Recent mergers of large industries, enabling more efficient production of both hardware and software, might be either an angel or a devil. Undoubtedly the individual teachers will be able to do certain things better with the materials than without them. The decision as to which materials should or should not be utilized for a given group at a given time and place might rest with industry rather than the professional educator. Theoretically, no one wants this to happen; practically, it could, and perhaps with a debilitating effect. The concern of the U. S. Office of Education might prevent such an occurrence, whereas an individual district would find itself powerless to intervene.

In summary, the federal level can be considered by the local district as either friend or foe, depending upon the circumstances. It can provide expert leadership within the field of education. It is providing more financing than ever before, largely in the form of categorical aid, which often tends to cause curriculum development in some preconceived direction. It is sufficiently powerful to protect individual districts from outside pressures which develop from time to time. Perhaps stronger units at the state and multi-state levels would tend to limit the undesirable activities at this level.

LIMITATIONS AND RESTRICTIONS TO BE CONSIDERED

Sophisticated, well-documented research in terms of desirable sizes of districts, students, and staff necessary for optimum curriculum development are quite sparse. Most of the literature available today refers either to individual bias and intuition or to something based on administrative convenience. Much more research is needed in this area. However, the following remarks are presented as comprising the best judgment of the author, supported by personal experience and a considerable review of the literature.

Minimums Necessary to Support the Least Acceptable Curriculum

The literature generally agrees that the minimum needed to provide a reasonable instructional program would include one teacher per grade in the elementary school or at least one hundred students in the graduating class of the secondary school. Jackson[18] studied high schools in eleven southern states and reached several conclusions. A major portion of curricular program enrichment, in the form of additional courses and subject areas, occurred with the enrollment range of 500–1,500 pupils.

Recommended enrollment ranges were: in grades 7–12, 950–1,300 pupils; in grades 8–12, 810–1,150 pupils; in grades 9–12, 890–1,250 pupils; in grades 10–12, 700–950 pupils.

Curricular programs generally continued to broaden in scope as school size increased—at least to enrollments of 2,000 pupils.

As an outcome of a recent study done in Georgia,[11] McClurkin proposes criteria for a good school system.

> A school system must be large enough to provide a full range of educational services and a qualified staff. This means 15,000 to 20,000 pupils in most systems, with a minimum of 10,000.
>
> Operations must be efficient and economical. This means control of all educational services by one local board of education.
>
> All school centers and the administrative headquarters must be accessible to the students they serve.
>
> Elementary School Centers—
>
> Minimum elementary schools provide at least one teacher per grade. Usually two first grade sections are needed to provide sufficient enrollment in Grade 7.
>
> Minimum enrollment should be about 240 pupils.
>
> **But**—
>
> Desirable criteria would allow about three sections for each grade.
> Enrollments should be from 500 to 720 pupils.
> Travel time should not exceed 1 hour each way.
>
> Secondary School Centers—
>
> Minimum criteria for an adequate high school program require:
> At least 100 students in Grade 12.
> At least 3 teachers for each grade.
> At least 3 times as many units offered as required for graduation.
>
> Research shows a definite relationship between school size and earmarks of quality, as measured by
>
> —Efficiency in operations
> —Low cost per pupil
> —Teacher qualifications
> —Teacher assignments in major fields
> —Number of subjects and courses offered
> —Special services and enriched programs
> —Technical specialization of employees
> —Scholastic achievement of pupils
> —Counseling and library programs
> —Percentage of graduates entering college.
>
> Larger schools give children a broader, richer, higher quality educational opportunity at lower cost per pupil.

McLure[24] proposed criteria for an adequate district.

1. The clientele should include pre-school age, elementary and secondary age youth, and a substantial portion of the adult population.

2. The program should have adequate breadth and depth of quality to accomplish the educational needs of all students to be served.
3. The schools should have adequate supportive services such as guidance and counseling, research and development services, psychological services, administrative and supervisory services, and auxiliary services such as transportation and food service.
4. Staff utilization should permit the assignment of teachers and other persons to their special fields of preparation.
5. The school population should be of adequate size to permit the organization of pupils, personnel, and facilities in various groupings of greatest educational effectiveness and economy.
6. A district should be governed by a board of education consisting of lay citizens elected on a non-partisan basis, and subject to policies expressed in state law.

To meet all of these conditions most satisfactorily a district would need about 25 to 30 thousand students. Some limitations would be found if a district has as many as ten thousand pupils, a figure which leading educators have claimed for many years as a minimum number for reasonable adequacy. To set goal of ten thousand pupils as a minimum size would undoubtedly appear unrealistic to most citizens. One of the most important problems in education is the need for citizens and professional leaders to think through the facts and issues of organizational characteristics of school systems.

On occasion the sparsity of population, inaccessible terrain, and the like may make sub-standard operations necessary in an attendance center. Somewhere diminishing returns must be recognized between the time students must travel to reach the school and a minimum, acceptable student population. Something approaching an arbitrary one hour limit each way on the school bus has been used by many as a maximum distance. If the district should find it necessary to operate a small school, adequate provisions should be made to over-compensate the instructional program through the provision of outside assistance. This aid would take the form of hardware and software necessary for a strong instructional program. It would further take the form of well trained staff members within the small school itself, supported from without with supervisory and consultative services. Examples of such assistance might include some or all of the following:

(1) Visiting master teachers who could work directly with the teacher and/or the students themselves on a regular schedule as is commonly the case with art, music, and physical education. It also should include at least on-call assistance from mathematics, science, foreign language, language arts and other experts who could work in the same fashion with the teachers and students.

(2) Electronic instruction should be utilized whenever and however possible. The materials resource center in the building could be tied to the central information retrieval center. The computer used by the district should provide many services to the staff of the small

building, thus reducing the amount of routine clerical time demanded of the teacher as well as broadening and expanding the depth of the curriculum. Telephone teaching could be utilized, thus linking classes with outside experts or individual isolated students with the class. The use of television, both ITV and local closed circuit, is a must in this kind of situation.

(3) A generous suply of the standard audio visual items should be provided. Such equipment would include record players, tape recorders, film strip machines, sixteen millimeter projectors, and overhead projectors.

(4) A variety of teaching machines of varying complexity should also be provided for individual student use.

(5) A strong emphasis upon individualized instruction should be a must in this attendance center of limited enrollment. Expertise and considerable preplanning on the part of the instructor are needed to produce the desired results.

One consistent weakness of most small districts is the inability to offer a reasonable selection of courses. As a result, therefore, the curriculum is limited to those absolutely necessary for college admission and very little else. Such a circumscribed curriulum does little to meet the needs of all the students and in fact forces them into a single mold—or out of school as a dropout. Ford, Hite, and Koch in a recent study discuss this problem.

> A major conclusion of this report is that the small, remote high schools studied do not take advantage of their small size. Frequent contacts among teachers, students and parents, are not utilized to offer imaginative programs for the education of rural youth. Rather than taking advantage of the potential that exists here, the small high schools appear to be imitating traditional patterns of program organization and staff utilization. Such program organization and staff utilization were discarded by the fine large high schools decades ago.
>
> It is our conclusion the educational advantages found in the remote high school studied are presently outweighed by disadvantages. The disadvantages arise from outdated and inadequate curricula and methodology and from activities and facilities which are too limited.[14] (p. 35)

Maximum Limits for an Acceptable Curriculum

For purposes of curriculum development, maximums are probably of less urgency than minimums. The large unit can be expected to have specialized talent somewhere on the staff. One perennial problem with large districts, however, is that of adequate communication to all members. It becomes increasingly difficult to insure the involvement, understanding, and support of all the staff as the numbers increase. Many of the large city school districts have recently moved toward decentralizing into administrative units of approximately twenty-five thousand students. This move seems to be undertaken primarily for administrative convenience rather than in an effort to improve the curriculum.

No matter the size, it is very important for the district to recognize the need for an individual approach to the curriculum. For example, an innovation which has excited one school is not always necessary in all other schools. The central curriculum staff may endorse and even encourage proliferation of the new program, but this should only take place when the individuals within the target building understand, support, and are capable of establishing the innovation. At the same time adequate curriculum leadership from the central office will make possible a curriculum scope and sequence which provide the best series of instructional experiences the district is capable of mounting. The small understaffed district cannot provide this important function and often relies upon disinterested, outside influences such as the textbook publisher or a persuasive salesman.

It would appear likely that as districts continue to grow past the thirty thousand pupil figure, the need for assistance from area resources should gradually diminish. There probably should develop a compatible, supplemental thrust on the part of the area unit which would reinforce, but not merely duplicate, the large district effort. McClure states:

> It has been impossible to interpret quality as related to both size of school and per pupil expenditures. The two factors have diametrically opposed effects. Very small schools are notably high in unit costs, and so are the best high schools. Increasing school size tends to lower unit costs, primarily through increased efficiency in professional staff utilization, and simultaneously to raise the unit cost, primarily through better qualified personnel and greater breadth and depth of opportunities.[4] (p. 74)

There is considerable support for continuing to retain as much local control of the educational process as possible in this highly centralized society of today. From a realistic standpoint, however, indications point to the contrary. Through the impotency of, or by default at the local level, controls continue to move further from the individual student. While some centralization of effort assists in curriculum development, indifference, disinterest, and mistrust of the large impersonal organization can do much to inhibit efforts of the staff.

In summary, there seems little justification for continuing the very small school or district unless the small unit is required because of geography or some other uncontrollable reason. If such be the case, extra supplies, materials, and staff should be provided to compensate the instructional program. Small districts find it difficult to offer a balanced curriculum. It is probably of less importance to the curriculum if the district contains extremely large numbers of students. The large district faces a disproportionate number of problems with local control, individual involvement, and general communication, due primarily to the size of the operation. The larger the district the less may be the need for the services available at the area level.

PERSONNEL NECESSARY FOR CURRICULUM DEVELOPMENT

The staff is actually the key to achieving a strong, well balanced curriculum. Staffing at the individual building level is the key to providing the strong grassroots base to the instructional program. The principal is the instructional leader for his building. Recently a new breed of instructional leaders has begun to occupy the principalship. These new principals are finding ways to delegate administrative detail in order to deal more effectively with problems of instruction, thus putting first things first.

As the content and emphases within the various disciplines continue to change rapidly, it becomes impossible for one individual to continue to be an expert in all the disciplines. In self-defense the principal must become a generalist, attempting to understand in broad terms what is advocated by the various disciplines. The secondary principal can turn to the department chairmen to provide him with the needed in-depth treatment of each subject. This role implies that the department head must have a strong background in both content and in method and must also have some scheduled time free from students to provide curriculum leadership within his discipline. There should be a vice principal for curriculum and instruction who will provide much of the coordination necessary in the process of curriculum development.

Building personnel will find much needed assistance from the central office staff. The elementary principal will employ the services of the central staff to an even greater extent because he does not have the administrative assistance in his building which the secondary principal enjoys.

Staffing of the central office is also quite important to the future of the curriculum. It is at this level that the coordination and overall leadership for the district must be concentrated. These people should be able to discern the "big picture," whereas individual building units are most concerned with smaller components of the total. The overall responsibility for the curriculum program of the district should be placed in the hands of one individual. He is called by a variety of titles including the director of instruction, curriculum director, assistant superintendent for curriculum and/or instruction.

To support the curriculum efforts of this individual, a staff of high quality specialists is needed. This group should be able to support, relate to, and keep in perspective the entire scope of the curriculum from pre-school through the adult level. Under the leadership of the director of instruction a continuous effort toward providing a strongly balanced curriculum should be maintained. These staff members should be assigned full time to the task of curriculum and instruction and should not be expected to work with students. They must be able to put all their energies to the single endeavor rather than diluting themselves in interesting but less essential activities. The central curriculum staff should include specialists in each of the following areas:

Art
Audio visual
Business education
Data processing
Early childhood
English–language arts
Evaluation and research
Exceptional children
    (both talented and retarded)
Federal relations
Home economics–family relations
Industrial arts

Languages
Library services
Mathematics
Music
Occupational-vocational
Physical education
Science
Social science

To summarize, it is within the scope of this group of experts that problems of curriculum and instruction will be dealt with. They will provide district leadership for curriculum development. They also will provide support and assistance on an individual building basis to staff members. They will be members of the district curriculum council. They will often serve as spokesmen for their subject area both within and without the district. They will be initiators and encouragers of educational research. They will constantly be attempting to keep their district in a positive educational ferment.

RELATIONSHIP OF OTHER SERVICES TO CURRICULUM DEVELOPMENT

A variety of supporting services must be maintained to enable the instructional program to function satisfactorily and efficiently within the established curriculum. These services are provided to support the instructional program, not to dictate to it.

The services generally housed under the label of pupil personnel services play an important support role in the instructional program and include the following: attendance, guidance and counseling, health services (dental, medical, nursing), psychological, social workers–home visitors, and speech therapists. Continued progress through automation and technological adaptation should improve their efficiency in the future.

The central research office is rapidly achieving new importance in curriculum development. As the instructional program becomes more sophisticated, and as greater attention is given to the research area, the function will take on added significance. Large scale curriculum development will be properly designed to ensure adequate evaluation. The learning process itself will be strengthened through the efforts of competently developed research.

Historically, educational research has been considered as something done within the ivory towers of some far-off university and having no direct bearing upon the "real world" of the public school classroom. Recently this concept has been recognized for what it was, and a more realistic approach has been developing. Leaders in industry have long recognized the importance of research and have provided generously for it. Education is making some belated movement to also provide such a commitment. To the extent that funding can be provided, the resulting research findings will modify and improve various aspects of the curriculum and of the teaching act itself.

As the local district develops curriculum experiments, it must adequately provide a basic research procedure. There must be a stated, identifiable purpose, a clear design, and a well thought through method of implementation. Adequate means of evaluation must be incorporated from the start to eventually substantiate any gains made by the project. A climate of change must be developed within the district to ensure a successful operation. With this climate for change it becomes increasingly possible to identify and relate to improved instructional methods and materials. When the staff finds it possible to ask the important questions of itself without feeling a personal threat, rapid, solid progress can take place.

Industry has recently developed a great interest in the educational market and has been providing research and development efforts of its own. As a result many new items of hardware and software are presently being made available. The curriculum director and his staff will be increasingly encouraged to accept these materials for use within the individual district. Indiscriminate and injudicious adoption of whatever is available will not necessarily improve an individual instructional program and may in fact weaken the total curriculum for the district. Careful analysis of the available materials coupled with some research of the possible ways of using them should be of primary importance to the curriculum effort.

Much of the instructional material now available and being promised to education can greatly contribute to a stronger instructional program. In most instances, however, these improvements will not take place without a significant, additional cost factor. As more attention is given to individualized instruction, for example, the instructional costs go up rapidly. The world of tomorrow demands a better product than that turned out today. The capability to provide that better product is present. The means of underwriting such a program must be located.

The data processing capability of the district will be a very significant part of the curriculum team. Through its capabilities much larger innovations, experiments, and curriculum study can take place more effectively and more efficiently. Rapid feedback of important information will assist the curriculum developer to identify those practices which are significantly important to continue and which need modification and revision. In the past this service has largely been used for the routine business operations and for some scheduling and printing of items such as grade reports. As the district understands the potential impact available to the instructional program itself, great forward strides will occur in the curriculum.

One very great concern of curriculum directors is the problem involved in communication. More unsuccessful curriculum development can probably be blamed on poor communications than any other one item. It is important that all interested parties, professional, lay adults, and the students themselves, have a general picture of what is being attempted. In the day when professional negotiation is becoming the accepted practice and when the teaching group is flexing its collective muscle, communications take on an even more important role. Many districts have found the curriculum council an acceptable mechanism to keep those working at the building level and at the central office level in communication. Various lay advisory committees can greatly assist, not only in developing a new program, but also in interpreting it to the others in the community. More and more it is becoming important for the district to have satisfactory communications with the state and the federal agencies.

In addition, the curriculum worker must be prepared to work with outside groups and agencies, both public and private. If this is not successfully accomplished, the process of curriculum development is not complete, and the results will be weakened accordingly. Some examples of the groups and forces which will be influential include the following:

The U. S. Office of Education and the various sub-units contained therein increasingly provide a stronger impact upon the local curriculum.

State departments of education have received additional funds and have begun to provide more leadership than in the past.

Private foundations continue to influence some parts of the curriculum through judicious application and withdrawal of grant money.

Business and industry are being encouraged to assist educational endeavors through special grants.

Universities, through the implementation of the various aspects of good teaching, creative research, and meaningful service to education, are continuing to affect the instructional program at the local school level.

Special interest groups, espousing their particular biases and coveting unique programs, are always present and must not be ignored, while not necessarily always being followed. Such groups might include anything from the local Chamber of Commerce, the American Medical Association, the American Legion, the PTA or AFL–CIO, to a local garden club, bridge club, or newly formed citizens' group attempting to make some definite change in the school program.

The curriculum specialist cannot ignore these pressure groups. It becomes vital to the success of his program, however, that he work with, through, and sometimes around them to achieve his goals. As a coordinating influence he can perform the role of a catalyst to pull together the work of these groups in a positive fashion.

In summary, the curriculum development process must include recognition of the importance of other related groups, agencies, and individuals to develop effectively the best curriculum for the district. The supporting services of pupil personnel, research, and data processing can assist the instructional program if properly utilized. Communications must be kept open and operate freely at all levels within the professional structure and also with the students, their parents, and various groups and agencies outside the school district. More influence upon the curriculum is being exerted from outside—the U. S. Office of Education, the state education agency, foundations, industry, the university, and pressure groups. All can play a very definite role, pro and con, in the development of a satisfactory curriculum and the accompanying instructional program. It becomes the responsibility of the curriculum worker to utilize and coordinate the potential strengths of these varied forces to further the best curriculum development.

Educational research is increasing both in magnitude and in quality. The local district must have properly trained researchers with the time and resources necessary to attack these problems of curriculum and instruction. A careful examination and selection of instructional supplies and equipment now available will improve the instructional capabilities of the district. The above mentioned services, pupil personnel, research, and data processing, represent examples of necessary support for the curriculum. To the extent that these offices fulfill their proper role in the district operation, the instructional program will be greatly strengthened. With weak or inadequate services, or a complete lack of them, it is very unlikely that the curriculum development process will be successful or will have a very great impact upon the instructional program.

CONCLUSION

The preceding remarks have attempted to place in some perspective the necessary relationships between school district organization and the curriculum in today's society. Part I describes some of the forces currently affecting the curriculum, plus some likely to continue to make an impact in the future. A need was described for a balanced curriculum capable of challenging the needs and interests of all students. As one looks to the future, the need becomes more evident for more teaching of concepts. Clearly defined and stated objectives must be present as the curriculum is implemented. Educational leaders should follow a realistic plan as the process of curriculum development unfolds. A broad inservice program should support the curriculum.

Part II describes some of the individuals and groups active in the curriculum development process, indicating the ingredients necessary to mount a solid program. Attention was addressed to the educational structure, proceeding from the local attendance unit to the federal government. Curriculum development usually ends and often begins at the building level. A strong district staff must be available to provide instructional leadership and classroom support in the various disciplines. An intermediate unit area is gaining popularity, providing leadership and various types of assistance at a level between the district and the state. More leadership and more financial support can be expected to emanate from the state in the future. A useful service might be provided through a multi-state cooperative arrangement. The Federal Government is playing an increasingly significant role in the local curriculum development process.

Next, consideration was given to limitations and restrictions on desirable curriculum development. A minimum size school and/or district becomes quite important when dealing with curricular matters. Adequate financing is often impossible in smaller districts, thereby producing additional problems. A special staff of instructional specialists necessary to carry out the curriculum development process is identified. The accompanying supporting services are briefly described. Districts unable to adequately provide such support are probably too small to offer a satisfactory program. Recognition is given to the significance of various outside pressure groups to the process of curriculum development and also to the increased importance of research.

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CHAPTER 5

SELECTED COMPARISONS OF TEACHER AND CURRICULUM CHARACTERISTICS RELATED TO EDUCATIONAL INNOVATION FOR THE GREAT PLAINS

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ABSTRACT

This report is presented in three sections: (I) Teacher Characteristics in Iowa, (II) Secondary Curriculum Distribution in Iowa, and (III) Educational Innovations in Secondary Curriculum for the North Central Association Schools of the Great Plains. The data are presented by pupil-enrollment categories and cost-per-pupil categories. The tables will enable administrators in the Great Plains states to compare teacher, curriculum, and innovative characteristics of their schools with other schools of similar size.

The Iowa data in Section I suggest that the best qualified staff are found in school districts with total enrollments of 1,500 and above. Schools in this range have more experienced teachers, better qualified teachers, fewer teacher course preparations, and more specialized personnel.

In Section II the data indicate that as district enrollment increases, the number of course offerings available in such areas as foreign language, business, and technical and vocational education also increases. On the other hand, the number of course offerings in homemaking decreases as district enrollment increases.

Section III presents the curriculum, organizational, and technical innovations being used or tried in the North Central-accredited schools. In all four states, at every school enrollment level, it appears that PSSC Physics and Chemistry Study Group Chemistry are the most popular curriculum innovations. At the national level the same courses are also the most popular. The most popular technical innovation in the four states seems to be the use of language laboratories. In some states data processing is the second most popular innovation while in one state television is widely used. Apart from student exchange programs, organizational innovations are being introduced sparingly.

INTRODUCTION

In order to evaluate effectively the need for change in the organizational patterns of school districts in the Great Plains, it is important to have available as much data as possible. These data will provide school administrators with the necessary tools to approach the problems of organizational and institutional change in secondary education.

To supply this need, Dr. Ralph Purdy and Dr. Ellis Hansen of the Great Plains Project asked the Iowa Educational Information Center (IEIC) to prepare a summary of selected data on teachers and curriculums in Iowa. These data could then be used on a comparison basis by administrators in other states, giving schools in the Great Plains at least some idea of how they compare with schools of the same size in Iowa. One might ask, why should Iowa be chosen as the normative group? The answer is simply that Iowa, at the present time, is the only state that has information of the type contained in this report that is available on a statewide level.

The Iowa Educational Information Center collects pupil, staff, curriculum, financial, and physical plant information on nearly all public secondary schools in Iowa as part of the CardPac System of Educational Accounting. Schools which fail to appear on the IEIC files are those which simply do not cooperate in the statewide collection. About 98 percent of all secondary schools in Iowa have information of the type described above in IEIC files. The documents used to collect teacher and curriculum information, through either the CardPac System or through the State Department of Public Instruction, are contained in Appendix A and Appendix B. In addition IEIC has on file the results of a survey of curricular and technological innovations for the accredited secondary schools in Nebraska, Missouri, South Dakota, and Iowa. A copy of the questionnaire used in the survey is contained in Appendix C.

All data presented in this report are for the 1966–67 school year.

This report will be presented in three main sections: (I) Teacher Characteristics in Iowa, (II) Secondary Curriculum Distribution in Iowa, and (III) Educational Innovations in Secondary Curriculum for the North Central Association Schools of the Great Plains.

Each section will contain narrative information describing a series of tables that graphically illustrate the three main areas listed above.

Section I

TEACHER CHARACTERISTICS IN IOWA

Iowa is a largely rural state with just a few large city school systems. In fact, only six school systems in the state have more than 10,000 total enrollment. On the other hand, the majority of the 455 districts each has a total enrollment of less than 1,500 students. As a result of the wide range in district enrollments, the data presented in the tables were grouped according to seven district enrollment categories.

Preparing the tables demanded an edit check on the range of most variables used. For example, if a teacher met more than 300 students in one class period, that particular part of the teacher record was by-passed. If an individual salary did not lie in the range of $2,400–$25,000, the salary was omitted from subsequent calculations. The total number of years of teaching experience was edited for the range 0–45. Finally, the number of semester hours of credit earned was edited for the range of 1–300.

Table 1 suggests that the smaller the school district, the greater the chance for a teacher to teach in more than one or two subject areas. In other words, the possibility of mathematics teachers teaching in some other area such as English or history is greater at the small-district level than at the large-district level. Apparently, school consolidation would tend to cut down the number of subject preparations for teachers. Small schools sometimes require teachers to teach in areas where they are not adequately prepared. This is shown in Table 2.

In addition Table 2 indicates that teachers in small schools tend to have three or more course preparations much more frequently than teachers in larger school districts. As districts become large, there is more opportunity to take advantage of specific subject-area preparation of teachers. In larger schools, teachers tend to have fewer preparations and hence will have more time to prepare thoroughly. It is interesting to note, however, that although the number of areas of preparation declines as enrollment increases, the number of subject preparations is about the same at the upper three levels. This might suggest that in order to reduce the number of teacher preparations, the secondary school should be located in a district with at least 1,500 total pupil enrollment.

Table 3 shows that schools with larger enrollments tend to attract teachers with better preparation insofar as number of semester hours of course work is concerned. Table 7 confirms this conclusion in that the larger the school district, the greater the chance of having staff with advanced degrees. Table 6 suggests that these same people tend to possess more teaching experience as well.

Tables 4 and 5 were prepared to determine if the number of major areas of study in college tends to differ for teachers in different enrollment categories. The tables indicate that approximately the same number of major areas of study are characteristic of all teachers at both the undergraduate and graduate level.

Tables 8–10[1] display salary ranges for administrative, teaching, and other professional personnel by enrollment categories. Again, a large difference between salaries for the largest three enrollment levels and the other four levels is apparent.

Classes tend to be larger in large school districts, as shown in Table 11. This means that teachers in larger schools tend to have class enrollments of 20–30 whereas teachers in small schools have a class enrollment of from 10–15.

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[1] Sample tables are reproduced. All tables are available in the original report. A limited number of copies are available in each of the four State Departments of Education.

The preceding discussion should have suggested to the reader that better quality faculty are found in larger schools. What other staff advantages are available in larger schools? Table 12 suggests that a specialist in Special Education apparently cannot justifiably be hired except in a larger school system, i.e., one of at least 1,000 students. An inspection of Table 13 suggests that apart from guidance counselors, other professional non-teaching personnel such as junior high school librarians tend to be found in larger school systems. This can only mean that more effective reading programs and hence better learning opportunities are available for children in larger school systems.

Tables 14–29 show the typical number of course preparations within subject areas by enrollment levels. With the exception of driver's training, agriculture, and vocational education, the trend seems to be that the number of course preparations within a subject area for a teacher is less for districts with an enrollment size of 1,500 and above than it is for smaller districts. The conclusion agrees with earlier statements made regarding teacher load in this section. The courses actually used within subject areas for Tables 14–29 are specified in Section II of this report.

SUMMARY

The data presented in this chapter from school districts in Iowa suggest that for grades 9–12, the best qualified staff are found in school districts with enrollments of 1,500 and above. Schools in this range tend to have better prepared teachers, more experienced teachers, fewer teacher preparations, and more specialized personnel available for expanding the educational opportunities of students. More help is available from librarians, special education teachers, supervisory personnel and guidance counselors.

Mean Frequency Distribution in Selected Areas of Teacher Activities in Iowa by Size of District (Summary of Tables 1-13)

Legend	District Enrollment		
	500–749	1,500–1,999	3,000 & above
No. of subject areas taught	1.37	1.19	1.22
No. of subject preparations	3.01	1.95	1.96
Total semester hours preparation	150.06	157.44	163.90
Total years of experience	9.64	11.16	13.36
Highest degree held: Bachelors	59%	55%	53%
Masters	13%	15%	22%
Salaries: Administrator	$9,507	$10,848	$10,939
Other than administrators or teachers	6,548	8,030	8,717
Teachers	6,240	6,902	7,205
No. pupils met per day per teacher	93.48	112.51	134.92

Mean Number of Different Teacher Preparations by Subject Area
(Summary of Tables 14-29)

Subject area	District enrollment						
	0–499	500–749	750–999	1000–1499	1500–1999	2000–2999	3000 & above
Communication skills	2.56	2.29	1.98	1.81	1.55	1.76	1.76
Fine Arts	1.92	1.84	1.61	1.55	1.60	1.69	1.72
Foreign Language	2.01	2.26	2.20	2.25	2.37	2.25	1.75
Mathematics	2.98	2.64	2.43	2.18	1.83	1.75	1.77
Health	1.00	1.13	1.00	1.00	1.00	1.00	1.14
Physical Education	1.88	1.85	1.48	1.52	1.31	1.33	1.56
Science	2.28	2.08	1.93	1.80	1.46	1.38	1.42
Social Studies	2.13	1.94	1.80	1.61	1.42	1.34	1.33
Agriculture	2.69	3.04	2.90	3.08	3.07	2.56	2.00
Homemaking	2.73	3.00	2.47	2.36	2.12	2.00	1.85
Industrial Education	2.37	2.54	2.45	2.29	2.07	2.12	1.68
Business Education	2.19	1.93	1.80	1.55	1.39	1.49	1.42
Vocational Training	1.84	2.13	2.06	1.89	1.79	1.83	1.36
Distributive Education	.00	.00	.00	2.00	.00	1.00	1.40

Section II

SECONDARY CURRICULUM DISTRIBUTION IN IOWA

The Iowa Educational Information Center collects curriculum information from 700 secondary school buildings, including junior high systems, as part of the CardPac System of Educational Accounting. This system was introduced by the Iowa Educational Information Center on behalf of the State Department of Public Instruction and may be briefly described as an automated system of collecting and processing data for the practical use of the schools and the State Department of Public Instruction.

In Appendix A (see position paper), a record of the CardPac course identification numbers is given. In describing the comparisons of Tables 30–45,[2] courses are combined within subject areas to give 17 broad subject areas. A description of which courses were combined and how the subject area is named in the tables follows:

Subject Area	*Table Description*	*Subject Area*	*Table Description*
Communications	Com.	Homemaking	Home
Fine Arts	Arts	Industrial Education	Indus.
Foreign Language	Lang.	Business Education	Bus.
Mathematics	Math.	Vocational	Voc.
Health	Hlth.	Technical Education	Tech.
Physical Education	PE	Distribution & Marketing	Mrkt.
Science	Sci.	Special Education	Spec.
Social Studies	Soc.	Driver's Training	Driv.
Agriculture	Agr.		

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[2] Sample tables are reproduced. All tables are available in the original report. A limited number of copies are available in each of the four State Departments of Education.

Administrators in Missouri, Nebraska, and South Dakota might find it of some value to compare curriculum summaries of Iowa schools on the CardPac Information File with those from their own states.

Tables 30 and 31 display curriculum frequency distributions by junior high and senior high buildings within a district-size category ranging from below 499 to above 3,000 district enrollment. In these two tables the list of the number of buildings with course offerings from one up to 200 is given.

Table 31 shows that there are only two junior high schools which have buildings in the district enrollment category "below 499." Administrators should not be confused or misinterpret this result. Iowa has gone through reorganization and because of this change, where two or more districts have combined their junior high enrollments, the combined enrollment exceeds this district enrollment category. On the other hand, districts of this size are not large enough to support a junior high structure in their district. The school district of this size operates under a K-8-4 structure.

It is apparent that the larger the school district the more course offerings are available to pupils. Tables 30 and 31 clarify this statement.

Charts 32 through 45 picture the curriculum in the seventeen subject categories as described earlier. Within these seventeen categories is shown a frequency distribution of course offerings within subject areas by buildings. For example, in Table 32 two buildings offer 13 courses in communication skills and 28 buildings offer 5 courses in communication skills. The buildings represented are from districts of sizes ranging from below 499 to above 3,000 district enrollment.

The pertinent feature of Tables 32–45 is that the number of course offerings within the seventeen categories tends to increase or decrease according to district size. In some schools of a certain size category, some curricular areas do not appear. This occurs in both the junior high and senior high tables. A probable explanation for this is that some schools teach units of this course combined with another course such as Health and Physical Education.

From an examination of the tables, it is clear that as enrollment increases, more different course offerings are available in areas of foreign language, business education, vocational education, and technical education. A limitation of these comparisons is that vocational reimbursable and non-reimbursable courses were combined. On the other hand, as district enrollment increases, courses in homemaking appear less frequently.

Courses in distributive education and special education are not found at the small-district enrollment levels.

These tables enable each administrator in Iowa to compare his school with all schools in the state that fall into the same enrollment category. Comparisons can also be made with schools in different categories. In some cases, while checking these tables, one will see a greater mean number of courses offered than for a school of the next higher enrollment category.

Example: High schools contained in the category "below 499" district enrollment have a mean for mathematics course offerings of 6.27. If a school building administrator would like to check to see how his school ranks with the mean of other schools in mathematics, he can compare his school with the following table:

500– 749	6.50
750– 999	6.17
1000–1499	6.03
1500–1999	5.71
2000–2999	5.73
3000–above	6.62

The school buildings in "below 499" enrollment category have a higher mean than four other averages of school buildings in higher enrollment categories. By analyzing the comparison of mathematics offerings by district size, one would think that schools showing a mean of 6.27 offer a greater number of courses in mathematics. Some reasons for these differences might be: (1) in large schools the subject areas in mathematics have been combined into a more modern unified mathematics curriculum; (2) the course offerings may not be structured as algebra, geometry, trigonometry, etc. Rather, the courses might be structured as Mathematics 9, Mathematics 10, etc. Of course, other possibilities exist. These are given as illustrations.

At the local level, school personnel could find their high school mean for mathematics and compare it with the overall mean of 6.27. A simple chart would show their school mean in relation to all the other school means in the State of Iowa. Administrators could also compute the mean of all the enrollment categories in each subject area and come up with a statewide mean in mathematics.

Example: The statewide mean for mathematics is 6.6. For all schools which have a mean of 6.6 a conclusion can be made that their school meets the average of the state in any school size in mathematics offerings.

This is an example of how administrators and other local school personnel can extract statistics from masses of raw data to compare their school or district with others on a statewide basis.

It is important to note that in the category "Health" very few schools, small or large, have more than two offerings. This means that very few schools regardless of size offer many courses titled "Health." In checking "Physical Education" every enrollment category shows a larger mean. Perhaps the discrepancy is due to Health being taught as a part or section of Physical Education and not as a separate offering.

Analyzing the course labeled "Marketing" would lead one to infer the same relationship between Business and Marketing Education. Marketing may not be offered as a separate course but as a unit in Business or Technical Training. The only category where Marketing is shown on the table is in the district enrollment category of 2,000–2,999 and above 3,000 category.

In the frequency distributions for the junior high curriculum offerings, many of the same inferences can be made as for senior high curriculum offerings.

SUMMARY

This section describes how school officials in Iowa can make use of the data in Tables 30–45 to compare the number of course offerings in their buildings with those of other schools of similar size in the State of Iowa. Officials from the other Great Plains States can make similar comparisons with the Iowa data.

It appears that as the district enrollment increases, more courses are available in such areas as foreign language, business, technical and vocational education.

TABLE 30
Total Senior High School Curriculum Offerings by Size of District

No. of offerings by bldg.	Total district enrollment						
	Below 499	500–749	750–999	1,000–1,499	1,500–1,999	2,000–2,999	3,000–Above
181–200							
161–180							
141–160							2
121–140						1	3
101–120				2			16
81–100	14	25	18	12	16	17	12
61– 80	50	66	35	40	11	11	3
41– 60	54	24	15	4		3	1
21– 40		3	1		1	1	
1– 20			1		1		1
Total	118	118	70	58	29	33	38
Mean	63.4	69.8	69.9	74.4	77.7	80.7	100.7
Std. Dev.	11.9	12.8	13.8	10.7	17.9	15.2	25.1

TABLE 31
Total Junior High School Curriculum Offerings by Size of District

No. of offerings by bldg.	Total district enrollment						
	Below 499	500–749	750–999	1,000–1,499	1,500–1,999	2,000–2,999	3,000–Above
181–200							
161–180							
141–160							
121–140							
101–120							
81–100							
61– 80						5	32
41– 60	1	4	3	9	9	18	38
21– 40		20	25	29	15	9	5
1– 20	1		1	1			
Total	2	24	29	39	24	32	75
Mean	31.5	34.0	30.2	35.7	38.0	48.7	56.8
Std. Dev.	20.5	9.1	6.8	8.6	11.2	11.8	10.3

TABLE 32
Senior High Curriculum Offerings by Subject Area for Districts with Total Enrollment Below 499

No. of offer.	Com.	Arts	Lang.	Math	Hlth.	PE	Sci.	Soc.	Agr.	Home	Indus.	Bus.	Voc.	Tech.	Mrkt.	Spec.	Driv.
17																	
16																	
15																	
14																	
13	2																
12	3																
11	5	1															
10	4			1													
9	10	2		3				6				1					
8	9	7		17			2	6						1			
7	17	11		29		1	6	21				4		1			
6	18	12		34		11	39	28			3	4	1	5			
5	28	16	1	27		2	14	20		2	9	8	1	17			
4	21	21	14	5		34	52	35		8	24	12	13	28			
3	1	29	10	1		7	5	2		12	46	17	54	23			
2		12	68	1	2	61				6	32	18	49	35			
1		4	19		7	2			10	7	2	13		7		1	81
Tot.	118	115	112	118	9	118	118	118	10	35	117	77	118	117		1	81
Mn.	6.6	4.5	2.2	6.3	1.2	3.1	5.0	5.6	1.0	2.8	3.1	3.2	2.7	3.3		1.0	1.0
SD	2.3	2.0	0.9	1.3	0.6	1.4	1.1	1.5		1.2	1.1	1.8	0.8	1.4			

TABLE 40
Senior High Curriculum Offerings by Subject Area for Districts with Total Enrollment 1,500-1,999

No. of offer.	Com.	Arts	Lang.	Math	Hlth.	PE	Sci.	Soc.	Agr.	Home	Indus.	Bus.	Voc.	Tech.	Mrkt.	Spec.	Driv.
17																	
16																	
15																	
14																	
13																	
12																	
11																	
10	1																
9	4			1										1			
8	3		1	1										4			
7	4	2	1	4				2				1		3			
6	9	5	1	10			2	10		2		2		5			
5	5	10	5	7			8	13				4		6			
4	2	4	4	5			17	3		7	5	9	8	2			
3		3	6			4	1			8	18	6	12	5			
2		3	10			24				6	4	1	8	2		3	
1		1			5				5	1	1	4				1	21
Tot.	28	28	28	28	5	28	28	28	5	24	28	27	28	28		4	21
Mn.	6.6	4.5	3.6	5.7	1.0	2.1	4.4	5.4	1.0	3.2	3.0	3.7	3.0	5.3		1.8	1.0
SD	1.6	1.6	1.7	1.3		0.4	0.7	0.8		1.2	0.7	1.6	0.8	2.0		0.6	

TABLE 44

Senior High Curriculum Offerings by Subject Area for Districts with Total Enrollment 3,000 and Above

No. of offer.	Com.	Arts	Lang.	Math	Hlth.	PE	Sci.	Soc.	Agr.	Home	Indus.	Bus.	Voc.	Tech.	Mrkt.	Spec.	Driv.
18												1					
17	1		1														
16			1									1		1			
15			2														
14			1														
13	3		3									1					
12	2	1										3		1			
11	3	3	3									2		1			
10	3		3									3		2			
9	6	4	4	4				2				6	1	6			
8	4	9	3	8			2	2						4			
7	3	8	5	8		1	3	2			1	6		7			
6	5	3	3	10		1	5	4			3	3	1	1			
5	4	8	1	2			8	15			1	3	11	4			
4	3	1	3	4		2	13	7		2	11	4	12	5			
3				1		8	6	4		2	13	1	10	3			1
2			4			22			4	1	7		1	2		14	1
1	1		1		11	1		1	14	1		2	1		3	12	25
Tot.	38	37	38	37	11	35	37	37	18	6	36	36	37	37	3	26	27
Mn.	8.2	7.3	8.4	6.6	1.0	2.6	4.8	5.1	1.2	2.8	3.5	7.9	4.1	6.8	1.0	1.5	1.1
SD	3.2	2.0	4.2	1.6		1.2	1.4	1.7	0.5	1.2	1.3	3.8	1.3	3.0		0.5	0.5

Section III

EDUCATIONAL INNOVATIONS IN THE SECONDARY CURRICULUM FOR THE NORTH CENTRAL ASSOCIATION SCHOOLS OF THE GREAT PLAINS

In addition to examining the detailed information available about the curriculum and teacher characteristics of Iowa schools, the administrators of Great Plains schools will find it helpful to compare their local programs with those of the accredited North Central Association schools. The accredited school data in this section comes from a questionnaire (See Appendix C) sent to schools in Iowa, Missouri, Nebraska and South Dakota.

A review of the questionnaire will indicate that school officials were asked to report the degree of innovations in curriculum and technology by levels of cost per pupil and district location. The data in the tables for this section are presented by state, by enrollment size, and by cost per pupil.

The tables show both the number of schools making full use of an innovation (upper number in a cell) and the number of schools which have made limited use of an innovation (lower number in a cell). For example, in Table 46,[3] 11 schools make full use of PSSC Physics. These schools have a per pupil cost of $350–$499. In the same cell, it is noted that 7 schools make limited use of PSSC Physics. In addition to the frequencies recorded in each cell, the percent of the total number of schools in that category is also recorded in the cell. By looking at the cell percents, an observer can determine what portion of accredited public schools in the state involved are making use of each innovation. The number of different North Central accredited public schools in each state with usable information is recorded by per-pupil cost and enrollment category below:

School enrollment	Iowa	Missouri	Nebraska	South Dakota
Under 200	6	3	20	14
200–499	67	24	54	34
500–1,499	34	43	18	11
1,500–2,499	15	30	6	0
Over 2,500	0	5	1	1
Totals	122	105	99	60

Per-Pupil Cost	Iowa	Missouri	Nebraska	South Dakota
Under $350	4	3	3	1
$350–$499	37	52	40	45
$500–$649	54	36	45	14
Over $650	27	14	11	0
Totals	122	105	99	60

School administrators can find those parts of the tables that pertain to their local school situation for comparison purposes.

Tables 46–49 display innovation information for the accredited Iowa schools. It appears from Table 46 that PSSC Physics and Chemistry Study Group Chemistry are by far the most popular recently developed curricular programs that are being used. The most popular per-pupil cost category for finding curriculum innovations in Iowa is 500–$649.

Language Laboratories tend to be the most popular technological innovation in Iowa. The other technical innovations are not really used in any large-scale way. This conclusion is drawn from the data in Table 47. The second most popular innovation is data processing equipment. Schools are beginning to use computerized grade reporting, attendance reporting, scheduling, and business accounting. The most popular per-pupil cost range for technical innovation is $500–$649.

Table 48 indicates that accredited high schools using the "modern" curriculum innovations have an enrollment greater than 200. However, the number of high schools in Iowa with a population exceeding 1,500 is only about 20. Apparently, mathematics and physical science innovations are not nearly as popular as the physics and chemistry innovations. By comparing Tables 46 and 48 it seems safe to conclude that the larger systems are not using the "modern" curriculum materials any more than are the middle-sized systems. Apparently middle-sized systems are also typical with respect to per-pupil cost. In other words, more money spent per pupil does not necessarily mean more innovative change in the curriculum.

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[3] Only sample tables are reproduced in this report. The following may be found in the original papers (available at the State Department of Education in one of the four member states): 46–7; 49–51; 53–55; 57–59; 61–62; 64; 66; 68; 70–116.

A reading of Table 49 suggests that although language labs and data processing are the most popular innovations, high schools tend to require an enrollment of about 500 before data processing equipment is found. Also data processing equipment seems to be used more in high schools in the enrollment range of 500–1,500 than in the larger high schools. However, many large high schools may have a centralized data processing center at the board of education office. In addition, Iowa has several area community colleges that provide processing services for the high schools. This may help to account for the small number of large schools with their own equipment.

On the other hand, language laboratories tend to be proportionately more popular in smaller high schools than in larger high schools. Schools with a moderate cost per pupil tend to have language laboratories more frequently than do schools with high or low cost per pupil.

Tables 50–53 display, respectively, the same data for the accredited secondary schools in Missouri. It is interesting to note that the same pattern characterizes schools in both Iowa and Missouri. However, in Iowa there are no accredited schools over 2,500 in size whereas in Missouri there are a few. Of course St. Louis and Kansas City have much larger schools than does any city in Iowa. Even with this population difference, however, Iowa seems to have more data processing schools than Missouri. It appears from comparing Tables 47 and 51 that the per-pupil cost for innovative schools in Missouri tends to be lower than in Iowa. A greater proportion of the technical innovations in Missouri have a per-pupil cost of $350–$499, whereas in Iowa a smaller proportion of the technical innovations are found in this cost range.

The summaries for the accredited school sample from Nebraska are listed in Tables 54–57. Although there appears to be a proportionately greater incidence of "modern" math in the schools, PSSC Physics and Chemistry Study Group Chemistry are again the more popular "modern" subjects in the curriculum. Language laboratories are the most popular technical innovation but unlike Missouri or Iowa, television instruction is popular. In fact, from inspecting Table 55, it is clear that television instruction is more popular than data processing. Due to the large proportion of small schools in the state, the need for data processing is probably not as great.

As is true with Missouri and Iowa, the schools with innovative curriculums tend to have an enrollment of at least 200 pupils. The higher innovation schools in both Nebraska and Iowa tend to have a per-pupil cost range of $500–$649.

Table 57 shows clearly that most of the schools using television have enrollments less than 500. Neither Iowa nor Missouri seems to use television as extensively as Nebraska does.

Although the number of accredited secondary schools in the sample from South Dakota is much less than in the other three states, Tables 58–61 display similar trends. The majority of innovative schools have a per-pupil cost comparable to Missouri. PSSC Physics and Chemistry Study Group Chemistry are the most popular "modern" subjects in the curriculum. Television is not as popular as in Nebraska, but compares favorably with Iowa and Missouri. As with the other states, the South Dakota schools' most popular innovation is the Language Laboratory. Unlike Iowa or Missouri, the second most popular technical innovation is programmed instruction. Data processing is not used significantly. The most innovative schools have enrollments exceeding 500. However, the greatest percent of the curricular innovations came from schools with enrollments in the range of 200–1,500. Again, the trend seems to be for larger schools to have more innovations.

In addition to the curriculum and technical innovations for the four-state North Central school samples, organizational innovations were tallied for each state. These data are presented by cost per pupil and by school enrollment categories. In Iowa the student exchange program and work-study program appear to be the most popular organizational innovations (Tables 62, 63). Limited use is being made of team teaching and non-professional teacher aides. Again these innovations tend to occur largely in schools with a per pupil cost of $500–$649 and enrollments of 500–1,499 pupils.

The same data for Missouri presented in Tables 64 and 65 indicate that organizational innovation in Missouri is as popular as in Iowa. Work-study programs rather than student exchange programs are the most popular. Student exchange programs are the second most popular with college credit courses and team teaching much less popular. In fact, non-professional teacher aides are used more frequently than team teaching. The greatest number of innovations occur in schools with a per-pupil cost of $350–$499 and enrollments between 500–2,500.

An inspection of Tables 66–67 indicates that little full-time use is being made of team teaching in Nebraska. Student exchange and work-study programs are popular. Like Iowa, the most innovative schools have a per-pupil cost of $500–$649. Enrollments of highly innovative schools seem to be from 200–500 pupils. Organizational innovations are being used more on a limited basis than on a full-time basis.

South Dakota schools are not typically making use of organizational innovations. Tables 68 and 69 show that student exchange programs are the most popular. Limited use is being made of teacher aides and team teaching.

The innovation tables at the end of this section (Tables 70–116) offer further comparison information for the interested reader. The tables display the twenty-seven innovations by school size, per-pupil cost, and district location.

SUMMARY

This section describes the technical, curricular, and organizational innovations being used in North Central accredited schools by states. It appears that the larger the school, the greater the chance for technological innovation. On the other hand, curricular innovations seem popular at all levels of enrollment. The most popular curriculum innovations are in physics and chemistry. The "modern" math and social studies programs apparently have not had as great an impact upon education as many educators might have anticipated. Language laboratories are popular in all states. Schools must make good use of this type of equipment for listening and recitation.

Schools in the Great Plains do not seem to be making much use of full-time organizational innovations. Most organizational innovations, apart from the Student Exchange program, have been adopted sparingly. Schools apparently are slow to adopt such changes as flexible scheduling and team teaching. Of course these changes are closely related to the adoption of data processing methods in the school. Perhaps in the near future more schools will join with local banks or industry to share computer time.

As more schools adopt data processing methods, undoubtedly the popularity of scheduling, team teaching, cultural enrichment, and special study hall arrangements will increase. These organizational changes are simply difficult to plan without machine availability.

Number of Organizational Innovations in North Central Accredited Secondary Schools by Pupil Enrollment

Legend		No. schools with organizational innovations					
		Less than 200	200–499	500–1,499	1,500–2,499	Over 2,500	Total
Number of schools:	Iowa	6	67	34	15	–	122
	Missouri	3	24	43	30	5	105
	Nebraska	20	54	18	6	1	99
	South Dakota	14	34	11	–	1	60
	Total	43	179	106	51	7	386
Flexible scheduling:	Iowa	–	5	2	–	–	7
	Missouri	–	–	–	1	–	1
	Nebraska	2	2	–	1	–	5
	South Dakota	–	2	1	–	1	4
	Total	2	9	3	2	1	17
Team teaching:	Iowa	1	5	15	4	–	25
	Missouri	–	–	18	24	4	46
	Nebraska	5	11	12	3	1	32
	South Dakota	–	6	3	–	1	10
	Total	6	22	48	31	6	113
College credit courses:	Iowa	–	3	10	6	–	19
	Missouri	–	2	9	11	2	24
	Nebraska	3	4	5	3	–	15
	South Dakota	–	3	2	–	–	5
	Total	3	12	26	20	2	63

Number of Organizational Innovations in North Central Accredited Secondary Schools by Pupil Enrollment

		No. schools with organizational innovations					
Legend		Less than 200	200–499	500–1,499	1,500 2,499	Over 2,500	Total
Non-graded school:	Iowa	–	–	3	–	–	3
	Missouri	–	–	2	2	1	5
	Nebraska	1	1	–	–	–	2
	South Dakota	–	2	–	–	–	2
	Total	1	3	5	2	1	12
Teacher Aides:	Iowa	1	18	14	10	–	43
	Missouri	1	10	15	4	2	32
	Nebraska	4	12	5	3	–	24
	South Dakota	4	11	1	–	–	16
	Total	10	51	35	17	2	115
Honor study halls:	Iowa	3	11	10	5	–	29
	Missouri	–	4	5	5	2	16
	Nebraska	2	13	10	2	0	26
	South Dakota	1	5	2	–	1	9
	Total	6	33	27	11	3	80
Work-study program:	Iowa	1	28	24	14	–	67
	Missouri	–	14	34	28	6	82
	Nebraska	8	33	11	6	1	59
	South Dakota	–	7	4	–	1	12
	Total	9	90	73	48	8	230
School within-a-school:	Iowa	–	–	–	–	–	0
	Missouri	–	–	–	1	1	2
	Nebraska	–	–	–	–	–	0
	South Dakota	–	–	–	–	–	0
	Total	–	–	–	1	1	2
Cultural enrichment:	Iowa	–	8	9	5	–	22
	Missouri	–	6	7	9	2	24
	Nebraska	6	14	1	2	–	23
	South Dakota	–	5	3	–	1	9
	Total	6	33	20	16	3	78
Student exchange:	Iowa	2	22	28	15	–	67
	Missouri	–	3	17	19	4	43
	Nebraska	2	18	11	5	–	36
	South Dakota	3	8	5	–	1	17
	Total	7	51	61	39	5	163
Optional class attendance:	Iowa	–	–	–	1	–	1
	Missouri	–	–	1	–	2	3
	Nebraska	–	1	–	2	–	3
	South Dakota	1	1	–	–	–	2
	Total	1	2	1	3	2	9

Number of Organizational Innovations in North Central Accredited Secondary Schools by Pupil Enrollment

Legend		No. schools with organizational innovations					
		Less than 200	200–499	500–1,499	1,500–2,499	Over 2,500	Total
Extended school year:	Iowa	–	2	–	–	–	2
	Missouri	–	1	4	1	1	7
	Nebraska	3	5	2	–	–	10
	South Dakota	–	3	–	–	1	4
	Total	3	11	6	1	2	23
TOTALS:[1] Full time:	Iowa	2	52	67	45	–	166
	Missouri	1	19	60	61	17	158
	Nebraska	7	38	24	21	1	91
	South Dakota	1	12	9	–	3	25
	Total	11	121	160	127	21	440
Limited time:	Iowa	6	50	48	22	–	126
	Missouri	–	21	54	44	11	130
	Nebraska	29	76	33	6	1	145
	South Dakota	8	41	12	–	4	65
	Total	43	188	147	72	16	456
Grand total:	Iowa	8	102	115	67	–	292
	Missouri	1	40	114	105	28	288
	Nebraska	36	114	57	27	2	236
	South Dakota	9	53	21	–	7	90
	Total	54	309	307	199	37	906

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[1] The Totals will not coincide with the number of schools indicated at the top of the table since the same school may have listed two or more innovations.

Source: Maxey, E. James and Thomas, Donald R., "Selected Comparisons of Teacher and Curriculum Characteristics Related to Educational Innovation for the Great Plains" (Prepared at the Iowa Educational Information Center, The University of Iowa, Iowa City, Iowa. Prepared for the Great Plains School District Organization Project. Mimeographed.) Tables 63, 65, 67 and 69.

CHAPTER 6

AN OPTIMUM READING PROGRAM FOR GRADES K-12 AND SCHOOL DISTRICT ORGANIZATION

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The "knowledge explosion" in the world today presents increasing demands that its citizens be able to read with understanding, insight, and critical analysis. Every child who enters the public schools must have at his disposal an instructional program in reading from kindergarten through grade twelve that is designed to allow him to develop his reading potential to the maximum. The program must be designed to allow him to meet the immediate objectives of his formal education and the broader goals of a lifetime of reading.

In order to provide the kind of reading instruction needed by each student, consideration must be given to the following:

1. There must be a program of reading based upon sound philosophy and research.
2. There must be a well-trained staff prepared to carry out the program.
3. There must be an organizational pattern that will permit the staff to function most effectively.

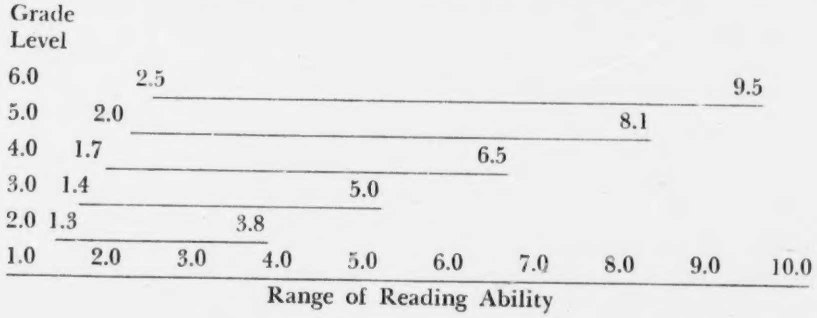
THE READING PROGRAM WHICH MUST BE PROVIDED

A total reading program for children in grades K–12 must meet a number of criteria. Professional and lay people should have a personal commitment to provide the best possible reading program.

Children must be taught on levels at which they can read successfully.

The fact that a child is in the third grade is no indication that he can read at third grade level. Children progress in reading at varying rates, just as they grow in height and weight at varying rates. Dr. Guy L. Bond, through considerations of test scores of pupils at the beginning of the school year, graphically illustrates the range of reading abilities that might be found in the typical elementary classroom.

NORMAL RANGE OF READING ABILITY FOUND IN TYPICAL CLASSROOMS OF GRADES TWO THROUGH SIX AT THE BEGINNING OF THE SCHOOL YEAR[1]



In studying the figures, it can be noted that the range of difference in reading ability increases as the children progress through the elementary school. This increase in range between the poorest and the best reader in the class continues to increase as the children progress into junior and senior high school.

When a large metropolitan school system surveyed the reading abilities of their entering freshmen and sophomores, they found that 10,000 out of 45,000 students were reading two to five or more years below their respective grades. A summary of the findings are indicated below.

SUMMARY OF READING STATUS[2]

29.7%		one year or more above grade norms
17.1%		at about grade level
16.6%		one year or less *below* grade norms
13.7%	were reading	from 1.1 to 2.0 years below grade norms
10.7%		from 2.1 to 3.0 years below grade norms
7.0%		from 3.1 to 4.0 years below grade norms
3.9%		from 4.1 to 5.0 years below grade norms
1.3%		5.1 years or more below grade norms

When students are promoted on a social basis, as they are in a majority of schools in our country, the range in reading ability can be expected to be as large as the illustrations above suggest. A child with an IQ of 80 should not be expected to make as much progress as a child with an IQ of 120 any more than we would expect a car traveling 80 miles an hour to keep up with one going 120 miles an hour. The more hours the cars travel, the greater the gap tends to be. The more years a child is in school, the wider the gap in reading ability.

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[1] Guy L. Bond and Miles A. Tinker, *Reading Difficulties, Their Diagnosis and Correction*, second edition (New York: Appleton-Century-Crofts, 1967), p. 47.

[2] Bernard E. Donovan, *Survey of Reading Abilities of Pupils Entering the Academic High Schools in September, 1955* (New York: Board of Education, 1955), p. 1.

The most significant factor is that each teacher must be aware that these differences exist and that he must provide differentiated reading materials and assignments to keep students progressing at instructional levels rather than having them read at frustration levels.

The classroom is organized so the teacher may teach effectively.

Historically, a number of organizational patterns have been attempted. In almost every attempt the aim was to make the individual fit the pattern. Today we must be more concerned with making the pattern fit the individual. No one organizational plan or pattern for reading instruction in the classroom is so clearly superior to another that it should be adopted by all schools. Schools and teachers should be free to select the type of classroom organization that will best provide for the wide range of reading abilities and needs as suggested in the first criterion.

Some organizational patterns that are currently being used successfully include:

At the Attendance Center Level

1. *The self-contained classroom* in the elementary school where reading is taught in each classroom by the classroom teacher. Classes often are subgrouped for instruction.

2. *The departmentalized program,* where reading is taught to several grades by one teacher who has a specialization in reading. This plan has been widely used in the junior-senior high school and there has been a growing trend to departmentalize in the elementary school, especially at the intermediate grades. In some instances intermediate grades are being housed in one physical plant referred to as the "middle school."

3. *The team teaching plan,* where a team composed of a team leader, a senior teacher, two or more participating teachers, teacher aides, and clerical workers are responsible for the instruction of a larger group of children. Some instruction in reading may be given to the total group and at other times subgroups are formed in order to provide for the more individualized instruction.

4. *The nongraded school,* where grade levels are eliminated. Children are grouped according to learning needs and progress through a series of instructional levels. In the elementary school, the scope of the program may be divided into twenty levels. A child remains in a particular group as long as his needs are being met.

5. *The special reading achievement classes,* where pupils are grouped for special periods according to reading achievement and regardless of grade placement. A student in the fourth grade may be reading with a sixth grade class if he has the skill to read the more advanced selections. A sixth grader could also read with the fourth grade class. This plan has sometimes

been referred to as the Joplin Plan. Modifications of the Joplin Plan are sometimes used when an attendance center has multiple grade sections. If a school has three third grades, the children may be shifted to various third grade teachers just for the reading class period.

At the Classroom Level

The self-contained classroom remains the most frequent type of attendance center organization for reading. Within the self-contained classroom the teacher may choose one of several plans.

1. *Homogeneous grouping,* where children are in small groups according to achievement in reading. Frequently three or more subgroups are used in order to narrow the range of abilities in each group. At times, all groups will work together. There is a possibility of moving from group to group.

2. *Whole group,* where an attempt is made to teach the whole class as a group. During a later period special practice is given those children who require it. This is a frequently used type of organization but is definitely the most unsatisfactory in terms of providing for individual differences.

3. *Individualized instruction,* where each child works at his own level and rate of learning. Individualized reading is a type of instruction in which the pupil chooses books of interest to him to be read at his own rate. Periodic conferences with the teacher are held in order to determine specific skills to be developed. Another type of individualized instruction might be one which utilizes programmed material. Students will all use the same programmed materials but will progress systematically through the materials at their own rates.

A variety of materials and equipment is used.

The First R: The Harvard Report on Reading in the Elementary Schools, published in 1963, indicated that 95.4 percent of the school systems included in the study relied "predominantly" or "exclusively" on basal reading series for instruction in grades one through three and that 90 percent of the intermediate grades used the basal reader as the chief tool of reading instruction.[3]

Most basal reading series have been developed by teams of reading specialists and are educationally sound. The beginning teacher with limited training in the teaching of reading is probably wise to select basal reading materials for use with the children in his classes. It would, however, be advantageous for any school to have several basal readers available from which the teachers may choose. The teacher can use that series or part of a series which best meets the needs and interests of his pupils. Only the most recent edition of the series should be used, as it will probably represent latest research in the field.

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[3] Mary C. Austin and Coleman Morrison, *The First R: The Harvard Report on Reading in Elementary Schools* (New York: The Macmillan Company, 1963), p. 54.

Teachers and reading specialists should keep abreast of other approaches to teaching reading. They must be aware of what the various approaches can and cannot accomplish. Some recent approaches include:

Programmed Reading
Artificial Orthographics
Linguistic Reading Materials
Individualized Reading Approach
Language Experience Approach
Machines Approach

More experienced and better trained teachers will be able to use an eclectic approach that will employ a greater variety of materials and equipment which have been devised for instruction in reading. Great care must be exercised by teachers and administrators to avoid spending funds on fraudulent wares which are currently being marketed.

Adequate attention is given to sequential skill development.

All too frequently the objective of reading instruction is to cover the stories in the basic reader or the literature book being used. If the student is to have a sound foundation for reading material at increasing levels of difficulty, adequate attention must be given to the sequential learning of skills. The reading skills to be taught usually include the developing of a sight vocabulary, phonetic analysis, structural analysis, identifying contextual clues, building vocabulary, finding the main ideas, determining supporting details, classifying and organizing information, evaluating information, determining inferential meanings, following directions, using the parts of a book, using the dictionary, and using the encyclopedia and other specialized references.

Although a teacher does not wait to teach structural analysis until a child has been introduced to and mastered all phonetic analysis skills, certainly a knowledge of a number of sight words and the ability to analyze them phonetically would be necessary in order to divide words into syllables and to study their roots, prefixes, and sufixes.

The skill program alone will not make a total reading program, but no reading program will ever succeed without a thorough systematic teaching of basic reading skills.

The subject matter teachers teach the special vocabulary and reading skills related to their subjects.

In the self-contained classroom, the teacher is responsible for all instruction. The skills of reading which can best be taught in connection with science, mathematics, or social studies will be taught by the same person who is teaching the other skills in reading class. It is possible to reinforce skills taught in reading in other areas of the curriculum, and to demonstrate how the skills learned in reading are helpful in a functional situation. In the middle school, junior, or senior high school, where the curriculum is departmentalized, it becomes imperative that each subject matter teacher be aware of and give instruction in the vocabulary and reading skills necessary for success in that subject.

Dr. Henry A. Bamman, in his text *Reading Instruction in the Secondary Schools*, devotes several chapters to the specific reading skills which need to be developed in the several academic areas.[4] For example, in the social studies he suggests these specific skills which need to be taught:

1. Using expanded vocabulary—technical terms, multisyllablic words, abstract words, general terms with new meanings.
2. Reading and deriving meaning from long and complex sentences.
3. Reading for important ideas and developing skill for retention of relevant events and developments.
4. Locating and evaluating materials.
5. Comprehending a sequence of events, simultaneous events, and cause-effect relationships.
6. Discriminating between fact and opinion.
7. Drawing conclusions and making sound inferences.
8. Developing various speeds of reading based on the types of material being read or the purpose for reading.

Every teacher in the school system from kindergarten to twelfth grade must of necessity be a teacher of reading.

The junior high and senior high schools give systematic attention to teaching children to read better.

In the early days of American public education, it was assumed that a student learned to read in the primary grades and from then on he read to learn. Today, we know that a student continues to refine and extend his learning skills throughout his years of formal schooling. Certainly, every junior and senior high school must give systematic attention to teaching students to read better. In order to accomplish this, every secondary school should provide:

1. *Developmental reading* for most students. This instruction is designed to continue the refinement of the same types of skills and abilities that were introduced in the elementary school. This should be mandatory for every student in grades seven through nine and for selected students in grades ten through twelve.
2. *Corrective reading* for those students who are not reading up to capacity but have no severe reading problems. This instruction can be provided in the classroom by a developmental reading teacher or by the subject matter specialist.
3. *Remedial reading* for those students who are seriously retarded in reading and who need highly specialized diagnosis and individual instruction. The student may need to be taught as an individual in a clinic or in very small groups by a specialist.
4. *Power reading* for those students who wish to achieve power in speed and comprehension above that normally expected at their grade levels. This type of reading program is especially desirable for those

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[4] Henry A. Bamman, *et al.*, *Reading Instruction in the Secondary Schools* (New York: David McKay Co., 1961), pp. 135–53.

who plan to enter college where competition is keen. These students will work individually with specialized materials and equipment in a reading improvement laboratory under supervision of a specialist.

Children not only learn the skills of reading but also learn to enjoy reading.

Educators have for several years considered the school library an essential component of a good reading program, yet many schools are operating without a library or with very inadequate library facilities. Every attendance center should have a well-stocked central library which will provide reading materials to meet the varied interests of the students enrolled in the center. This variety of multilevel materials should be available to accommodate the wide range of reading ability found among students. Time should also be provided for browsing, selecting, and free reading during the school day.

Suitable classroom collections can be checked out from the central libraries to accommodate varied interests related to subjects under concentrated study at the time. Traveling libraries may be necessary for use in sparsely settled areas.

Children should be encouraged to start their own library collections. Attention should be given to paperback books, which are becoming readily accessible and inexpensive. Due to the large number of books which are published each year, it would be possible for a student to have a steady diet of mediocre books. Care must be taken to see that children are introduced to some of the best literature at the proper age and stage of development.

It is recommended that every elementary school should have:

1. A central library.
2. A teacher librarian (six hours of library science) or a part-time professionally trained librarian.
3. A minimum budget of 3 to 5 percent of the total school budget for printed materials.
4. An approved collection of 15 books per pupil, or 1,500 books, whichever is larger.
5. A balance of books to meet all reading levels.
6. A balance of books to provide for informational and recreational needs of pupils.
7. Classification by Dewey Decimal System.
8. Additional materials to the above—an appropriate set of encyclopedias, unabridged dictionary, atlas, current almanac, magazines children's and teachers'), professional books for teachers.

The American Library Association recommends that secondary schools with 200 to 550 students should have:

1. A school library area with seating space for at least 45 to 55 students.
2. A minimum book collection of 6,000 to 10,000 books, 120 magazine subscriptions, three to six newspapers, and an extensive collection of pamphlets.

3. A budget of at least 3 to 5 percent of the total school budget for printed materials plus another 3 to 5 percent for audio-visual materials.
4. A collection of professional materials for the school faculty.
5. One full-time librarian and one full-time clerk.[5]

The program provides adequately for children with extreme disability and for the superior reader.

Observations of existing developmental reading programs indicate that the instruction is generally directed toward the average students in the group. In recent years more attention has been given to those individuals who, for a variety of reasons, do not read up to their ability. Other students may not be reading up to grade placement level. An often neglected group of students are those who may be reading "on grade level" but should be reading "above grade level." Research indicates that between 10 to 15 percent of the student population may be classified as disabled readers and need remedial instruction. As many as 3 percent may have more severe reading problems and need to be referred to a reading clinic.

An adequate testing program should be provided to determine those students in the class who may need to be singled out for help either in or outside the regular classroom. Such a testing program ought to include:

1. An intelligence test to be used in determining capacity. A test that does not involve reading should be utilized.
2. A group achievement test to measure achievement in areas such as vocabulary, comprehension, and rate of reading.
3. A group diagnostic reading test for all children in the class to determine specific skills which need to be worked on by the entire group or individual students in the class.
4. An individual diagnostic reading test to determine specific areas of weakness for all those students who have unacceptable differences between capacity and achievement.

As a result of the testing program, students could be classified as follows:

Normal progress students—those students who are working up to capacity (this may not be up to grade level).

Corrective cases—those individuals who may be deficient in one or more reading skills, for which suitable correction can be given in the classroom by the classroom teacher.

Remedial cases—those students who are working considerably below capacity and can be helped most by a special reading teacher working with one individual or a small group of students.

Clinical cases—those students who are severely retarded in reading and, in addition, have psychological and physiological problems that require the professional assistance of reading therapists, psychologists, psychiatrists, and social workers.

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[5] American Library Association, *Standards for School Library Programs*, 1960, pp. 24–25.

The teacher keeps records on a student's progress and passes these records on to the next teacher.

As the student progresses through grades K–12, adequate records need to be maintained of his progress in his acquisition of reading skills, as well as some record of his reading interests. It should be possible for a teacher to analyze the past records and be able to estimate the student's instructional level without a loss of valuable time. Such records should be confidential.

Most commercially developed forms do not include adequate information on reading. A special reading profile sheet could be developed and inserted in the cumulative record folder. The record should include information concerning:

1. Reading expectancy levels based on I.Q. and/or capacity test results.
2. Reading achievement test scores.
3. Diagnostic test results.
4. Informal test results.
5. Record of basic readers or other reading materials which the student has used (levels of materials must be recorded).
6. Record of books and materials the student has read independently.

More complete case studies will need to be developed for the students who are referred to special classes or clinics for reading instruction.

If a student transfers to another school the records should be forwarded.

Parents are kept informed about the reading program.

The teacher as the professional person does and should play the major role in teaching the student to read. However, some parents often desire to assist the teacher in the reading instruction. The child is only in school six hours a day for 180 days in the school year. The parents have much more contact with the student than the teacher. The parents should be kept informed about the reading program and should be briefed as to how they can help.

There are many things which parents can do in creating a desire on the part of the student to read, as well as helping him to develop a positive attitude concerning the value of reading. Some activities which parents can be responsible for include:

1. Reading extensively to the student, starting early in the pre-school years and continuing as the child begins and progresses in school. The child's reading interest is usually two or more years beyond his reading ability. Even after a student is in junior and senior high school there can be oral reading sessions where the student participates as a member of the family's reading team.
2. Relating the child's reading to his interests, encouraging the child to pursue his interests and to develop new ones. Help him to find reading material relating to his interests.
3. Providing many books and other reading materials in the home.
4. Giving the child as many background experiences as possible. Every first-hand experience will aid the student in acquiring an interpretative ability in reading.

5. Setting an example by reading themselves.
6. Keeping the student well and rested. A tired, irritable student is not ready to read. Avoid absences.
7. Keeping informed about his child's progress in reading. Make the parent-teacher conference really count. Ask the teacher if there is anything special that he can do.
8. Praising the student for his accomplishments in reading. Remember that learning to read is a difficult task—more difficult for some than for others. Help each child set reasonable goals for himself and then accept what he can do. Avoid comparing one child unfavorably with others in his family.
9. Trying not to become tense or outwardly worried about his child's reading. Students reflect this tenseness, and this complicates the problem.
10. As the child progresses through school and home work becomes more frequent, providing a proper place and time to study.

THE STAFF NECESSARY TO PROVIDE THE PROGRAM

Every child should have a regular classroom teacher who has adequate preparation. The International Reading Association believes that classroom teachers of reading should possess a bachelor's degree, including courses in child or adolescent psychology, educational psychology, educational measurement, and child or adolescent literature.

The elementary teachers should have a minimum of six semester hours in accredited reading courses. The courses should cover the following areas:

General Background
- —The nature of language
- —Psychology of the reading process
- —Interrelationship of activities and outcomes in the four language arts
- —Nature and scope of the reading program

Reading Skills and Abilities
- —Vocabulary development
- —Pre-reading readiness abilities
- —Readiness for reading at any level
- —Word recognition skills (including word analysis)
- —Reading comprehension abilities, including critical reading
- —Interpretive oral reading

Diagnosis and Remedial Teaching
- —Techniques for evaluation of progress
- —Difficulties frequently experienced by children in learning to read
- —Diagnostic techniques that can be used by the classroom teacher
- —Differentiation of instruction to fit individual capabilities
- —Corrective methods for use in the classroom

Organization of the Reading Program
- Classroom organization for reading
- Varied approaches to reading instruction
- Planning a reading lesson

Materials
- Knowledge and use of basic and supplementary materials of instruction
- Selection of suitable reading materials
- Knowledge of children's literature

Application of Reading Skills
- Skills needed for reading in content fields
- Qualities to be appreciated in literature
- Fostering lifetime use of reading

The secondary teachers who are primarily responsible for developmental reading should have one or more courses in reading which cover the following areas:

General Background
- The nature of language
- The psychology of the reading process
- Interrelationship of activities and outcome in teaching the four language arts
- Overview of reading in the elementary school
- Nature and scope of the reading program at the secondary level

Reading Skills and Abilities
- Readiness for reading at the secondary level
- Word recognition skills
- Vocabulary development
- Interpretative oral reading
- Critical reading
- Improvement of silent reading and reading rate

Diagnosis and Remedial Teaching
- Evaluation of pupil progress
- Differentiation of instruction to challenge individuals, including diagnosis and correction of student problems

Organization of the Reading Program
- Varied approaches to reading instruction at the secondary level

Materials
- Materials of reading instruction

Application of Reading Skills
- Varying the approach to reading
- Reading in specific content areas
- Reading a variety of mass media
- Qualities to be appreciated in literature
- Fostering lifetime use of reading

Every attendance center should have access to reading specialists. The reading specialist may be designated as that individual who works directly or indirectly with those pupils who have failed to benefit from regular classroom instruction in reading, and/or who works with teachers and administrators to improve and coordinate the total reading program of the school. For those persons spending the majority of their time in developmental or remedial reading activities, additional preparation is needed. In 1965 the International Reading Association's Professional Standards Committee formulated the following minimum standards for reading specialists:

I. A minimum of three years of successful teaching and/or clinical experience
II. A master's degree with a major emphasis in reading, or its equivalent of a bachelor's degree plus 30 graduate hours in reading and related areas as indicated below:
    A. A minimum of 12 semester hours in graduate level reading courses with at least one course in each of the following:
        1. Foundations or survey of reading
        2. Diagnosis and correction of reading disabilities
        3. Clinical or laboratory practicum in reading
    B. An additional minimum of 12 semester hours from the following courses:
        1. Measurement and/or evaluation
        2. Child and/or adolescent psychology or development
        3. Personality and/or mental hygiene
        4. Literature for children and/or adolescents
        5. Educational psychology
        6. Organization and supervision of reading programs
        7. Research and the literature in reading
        8. Linguistics
        9. Communications
        10. Curriculum
    C. The remainder of semester hours from additional courses under IIA, IIB, and/or related areas such as:
        1. Foundations of education
        2. Guidance
        3. Speech and hearing
        4. Exceptional child

In order to prepare adequately the classroom teachers, every college or university which offers teacher education programs should have on its staff an individual who has the training and experience to provide the special courses in reading which are needed.

There should also be at least one school in a state or geographical region which offers adequate graduate work to prepare the reading specialists needed in the state or area involved.

It may be desirable that the staff members at the college or university level be consultant-professors who are employed jointly by the public schools and the institutions of higher education. These individuals would be in a position to offer consultant service and to assist in the development of effective in-service programs in the public schools, as well as having responsibility for the reading courses taken by pre-service teachers. Both programs should benefit mutually from such an arrangement.

THE ORGANIZATIONAL PATTERNS NECESSARY FOR AN OPTIMUM READING PROGRAM

The basis for a sound reading program begins in the individual classroom with the classroom teacher. The teacher in turn operates within the attendance center to which he is assigned with the aid of the special programs and services provided at that level. As in other areas of instruction, not all programs and services in reading can be provided at the attendance center level. Some can most efficiently and economically be provided for at the administrative district level, some at an intermediate unit level, and others at the state and national levels. Presented below are the programs and services in the area of reading instruction which can best be provided at each level.

Every Elementary Attendance Center Should Provide

....developmental reading instruction at all levels.

....well-qualified classroom teachers with at least six semester hours in accredited reading courses.

....a reading specialist to work with the 10 to 15 percent of the student body who may need remedial work outside the classroom. If the attendance center is small, he may work with more than one center.

....a variety of instructional materials in reading and the content fields to meet the varied needs and interests of the pupils in the school.

....room libraries to meet the immediate interests of the students.

....a central library to meet the wide range of interests and reading abilities of the students enrolled.

Every Secondary Attendance Center Should Provide

....developmental reading instruction for all seventh, eighth, and ninth grade students. Instruction in developmental reading should also be provided for those tenth, eleventh, and twelfth grade students who can profit from such instruction. This instruction may be given by the English or core teachers.

....instruction in specific reading skills demanded by their respective subjects by all teachers in the content areas. Instructional materials of varying degrees of difficulty must be made available in each subject area.

....a reading laboratory with a reading specialist in charge to provide for remedial reading instruction. The reading laboratory should also be available for the superior students who desire more advanced instruction in reading skills.

....a central library to provide for the wide variety of reading interests and ability represented by the students enrolled.

Every Administrative District Should Provide

. . . . a reading specialist at the administrative level who will be responsible for coordinating all reading programs in the elementary and secondary attendance centers in the district.

. . . . an in-service program for all teachers responsible for developmental reading. This in-service program would be designed to supplement the preservice training and keep teachers abreast of new research and instructional material.

. . . . an in-service program for all teachers of the content fields to prepare them to teach effectively the reading skills needed in their areas of specialization. Many of these teachers will not have had previous instruction in this area.

. . . . adequate consultation in the development of Title I reading programs in the eligible attendance centers.

. . . . adequate supervision for the central libraries in the various attendance centers. This will be needed especially where teacher-librarians are concerned. Central purchasing of books should be utilized for most economical expenditure of the local library budget as well as Title II funds.

. . . . a central distribution point for reading tests, materials, and equipment which would not necessarily be needed in every attendance center. These materials could probably be handled by the multi-media center.

. . . . an adequate testing program in each attendance center. Testing services not available at this level could possibly be secured at the intermediate unit level.

. . . . reading clinic services neded by the approximately 3 to 5 percent of the students involved. If such service is not available at this level, it should be secured from the intermediate unit or a nearby college or university.

. . . . action research in reading in each of the attendance centers.

Every Intermediate Unit Should Provide

. . . . reading consultant service to the reading specialists on the staffs of the administrative districts in the area. It is possible in some areas that this service may be provided by a consultant-professor who is employed jointly by an area college or university and the intermediate unit.

. . . . adequate psychological services not provided by the administrative district. Again these services might be provided in conjunction with area colleges or universities.

. . . . adequate reading clinic services which are not provided for by small administrative units. These services might be in cooperation with an area college or university.

. . . . specialized in-service programs where outstanding leaders in the field are brought into a central locality for short-term workshops.

. . . . stimulation for innovation in the area of reading instruction. Adequate evaluation of innovative programs should be conducted before these programs are recommended for mass utilization.

Every State Department of Public Instruction Should Provide

.... a reading specialist on the staff who will coordinate all the activities related to reading within the state. He will serve as a consultant to administrative districts and intermediate units in their relationships with the U.S. Office of Education, and advise and assist the State Title I director in relation to reading projects.

.... the psychological services not adequately provided for by the administrative district or by the intermediate unit.

.... direction and coordination of research and dissemination of information related to reading.

The U.S. Office of Education Should Provide

.... through the national office or through the various regional laboratories, basic research that will lead to continued improvement of instruction in reading.

.... continued support of the summer institute programs as well as the graduate fellowship programs for the preparation of reading teachers and specialists.

.... continued support of educationally sound Title I reading projects for the educationally deprived.

.... help in establishing and financing reading clinics in those sparsely populated and economically deprived areas of the nation which cannot be adequately supported through local initiative.

SUMMARY

In order to provide the kind of reading instruction needed by each student K–12, consideration must be given to the following:

I. THERE MUST BE A PROGRAM OF READING BASED UPON SOUND PHILOSOPHY AND RESEARCH.

.... Children will be taught on levels at which they can read successfully
.... Classrooms are organized so the teacher can teach effectively
.... A variety of materials and equipment is used
.... Adequate attention is given to sequential skill development
.... Subject matter teachers teach the special vocabulary and reading skills related to their subjects
.... Junior and senior high schools continue the systematic program of skill building begun in the elementary grades
.... Children learn not only the skills of reading but also enjoyment of reading
.... Children with extreme disabilities as well as the superior readers are adequately provided for
.... Individual records are maintained and these records are passed on to the next teacher
.... Parents are considered as part of the team and kept informed about the reading program

II. THERE MUST BE A STAFF ADEQUATELY PREPARED TO CARRY OUT THE PRORGAM.

- ....Elementary teachers have a minimum of six semester hours in accredited reading courses
- ....Secondary teachers who are primarily responsible for developmental reading have at least one course in the area of reading
- ....All teachers of the content fields assume responsibility for teaching reading skills necessary for success in those subjects. Training of these teachers may require an in-service program.
- ....Reading specialist must have a master's degree with a major emphasis in reading. Specialists must be available to teach remedial reading, supervise reading laboratories, and conduct in-service programs.
- ....Consultant-professors with advanced training in reading could be employed jointly by public schools and institutions of higher education for pre-service and in-service training of classroom teachers and reading specialists.

III. THERE MUST BE AN ORGANIZATIONAL PATTERN THAT WILL PERMIT THE STAFF TO FUNCTION MOST EFFECTIVELY.

Every Elementary Attendance Center Should Provide

- ....developmental reading instruction for all
- ....a reading specialist to work with students in remedial reading outside the classroom
- ....a variety of instructional materials
- ....a room library to meet the immediate interests of students
- ....a central library to meet the wide range of interests and abilities

Every Secondary Attendance Center Should Provide

- ....developmental reading for all 6th-7th-8th grade students and those in grades 9–12 who can profit from such instruction
- ....adequate instruction in reading skills peculiar to each academic area
- ....a reading laboratory for remedial and power reading instruction

Every Administrative District Should Provide

- ....a reading specialist to coordinate all reading programs
- ....an in-service program to keep all teachers abreast of new research and instructional materials
- ....a central distribution point for reading tests, materials, and equipment
- ....an adequate testing program
- ....action research in reading in each attendance center

Every Intermediate Center Should Provide

- ....consultant service to reading specialists on the staffs of administrative districts in the area
- ....psychological services not provided by the administrative districts
- ....stimulation for innovation in the area of reading instruction

Every State Department of Public Instruction Should Provide

.... a reading specialist to coordinate all the activities related to reading within the state

.... psychological services not adequately provided for by other administrative units

.... direction and coordination of research and dissemination of information

The U.S. Office of Education Should Provide

.... stimulation of basic research that will lead to continued improvement in reading instruction

.... institutes and fellowship programs for the preparation of reading teachers and specialists

.... continued support of Title I projects for the educationally deprived

.... help in establishing and financing of reading clinics in sparsely populated and economically deprived areas

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CHAPTER 7

VOCATIONAL-TECHNICAL EDUCATION AND SCHOOL DISTRICT ORGANIZATION

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INTRODUCTION

Throughout the nation, there is a massive expansion in the area of vocational and technical education—a massive expansion, encouraged and supported by government, business, industry, school administrators, parents, and students. This growth of interest is indicated in the raw figures on the growth of programs throughout the nation.

In 1963 there was a total of 4,217,198 youth and adults served by vocational education programs reported to the Division of Vocational Education in the U. S. Office of Education. Preliminary figures for the fiscal year just closing as of July 1, 1967, show an enrollment for that year of slightly over 7,000,000.

This phenomenal growth in vocational education programs and the projected growth based on facilities already under construction point to the fact that vocational education is being accepted truly as an important part of the total educational program and as one of the weapons in the war on social and economic problems that have faced every great civilization. The further growth of vocational education is predicted on the basis of the continuation of our technological evolution and the interest throughout our nation in overcoming some of the social problems that no civilization has ever solved.

The growth in productivity during the industrial revolution was brought about by making men slaves to machines. The technological evolution which we are undergoing is freeing men from that slavery. The price of this freedom is increased knowledge and skills required to serve as master of the machines. The jobs that will be available in the world of today and tomorrow will be for people who "know something" and "can do something." The man who earns his living with his back is going out of business.

Our society is also determined to bring the benefits of that society to all citizens, including those who in previous societies were considered "unfortunates" and were only tolerated as a necessary evil. As efforts are made to integrate all people regardless of race, creed, or color into the mainstream of our economic life, it has become increasingly evident that education is a ladder from the pit of poverty for most of the unfortunate people, and that vocational education provides many important rungs on that ladder.

As vocational education becomes increasingly important in our economy and as increased efforts are made to bring the benefits of such programs to more youth and adults, it is important that careful consideration be given to the types of vocational education programs and the program organization which can best perform the tasks assigned to it.

This position paper suggests some principles and practices of vocational and technical education for the public education system.

IDENTIFYING VOCATIONAL AND TECHNICAL EDUCATION

The terms "vocational education" and "technical education" often are used interchangeably in public education to describe the same types of programs. Within the framework of this description, however, the terms will be used to describe companion programs, but programs which have different goals and different purposes, and serve different types of occupations.

There are no legal definitions of these terms, so it cannot be said that anyone is using them incorrectly. However, if we want to talk about two different types of education, both related to occupations in business and industry, it is feasible to define these terms to identify these different levels.

A definition or description of vocational education concerned with skilled level occupations in the areas of construction, maintenance, repair, servicing and production can be worded as follows:

The primary purpose of vocational education is to equip persons for useful employment. The program is designed to serve the needs of people in two distinct groups: first, adults who have entered upon, and, second, youth and adults who are preparing to enter, occupations in agriculture, business, homemaking, distribution, trade, and industrial fields requiring less than a college degree.

Vocational education helps to give definite purpose and meaning to education by relating it to occupational goals. It provides the technical knowledge and work skills necessary for employment, but it is more inclusive than training for job skills. It develops abilities, attitudes, work habits, and appreciations which contribute to a satisfying and productive life.

Vocational education contributes to the general educational needs of youth, such as citizenship, respect for others, and acceptance of responsibilities; but it makes its unique contribution in the field of the preparation for work. It is a part of a well-rounded program of studies aimed at developing qualified efficient workers. It recognizes that the American worker should be competent—economically, socially, emotionally, physically, and in a civic sense.

The uniqueness of vocational education programs in our public schools is in their contribution to the skills and technical knowledge required for employment. Recognizing the needs of youth and adults for instruction in a field of occupations, no public high school or public school system can be classified as comprehensive unless the educational offerings include a comprehensive vocational education program to serve youth and adults.

Technical education, on the other hand, as the term will be used in this report, is concerned with design, development, testing, supervision, or mid-management functions. The technician does not replace the professional person or the skilled worker. He does, however, enable the professional person to work at his highest level of educational training by providing supportive services. The technician also enables the skilled worker to function effectively and economically through coordinative and interpretive functions which he serves between the professional and the skilled worker.

Technical education is a new level of education in keeping with our technological revolution and the changing needs of both people and business and industry in our economy. This new level of education is planned to prepare para-professionals in two-year post-high school programs to support the professional people in engineering, business, agriculture, distribution, health, and public service occupations. Such para-professionals can be prepared in two-year post-high school technical education programs to work in a team relationship with both the professional people and the people at the skilled or vocational levels of employment.

Both vocational and technical education may at times be lumped under the one term "vocational education," since the Vocational Education Act of 1963 and Title VIII of the National Defense Education Act, establishing Title III of the George-Barden Act, both include technical education as a part of the overall vocational education function. It is essential, however, that these two separate functions be identified clearly for one purpose; the curriculum, facilities, instructional materials, student goals, and minimum levels for successful achievement are normally different.

BASIS FOR VOCATIONAL EDUCATION

Even the early theorists in the area of education, while lacking the support of educational psychology, recognized and understood the need for an experience-centered curriculum. Rousseau, Froebel, and Pestalozzi all pointed toward the need to involve the children's ongoing experiences in life within the learning process.

During these early days, however, there was little necessity for vocational education, since the learning of work skills was a function of the family or the ongoing society in which they lived. The emphasis placed upon the importance of the relating of the child's home and work experiences, in terms of his school work, was based on the necessity of using such an experience base as support for the teaching of reading, writing, arithmetic, and other basic educational functions important to the changing society.

Essentially, John Dewey, one of our modern theorists in the area of education, synthesized some of the learning theory of the former leaders in the field of education as he propounded his concept of learning by doing. The learning by doing theory did not, however, fit easily into the subject-centered curriculum that had grown in our public schools. In too many cases, the interpretation was made that activity, however meaningless, would be a basis for learning, or resulted in the acceptance of an extreme permissive concept of "What do you want to do today, children?" The educators who attempted to introduce the concepts of Dewey on these bases missed the whole point of the early leaders in learning theory, who deduced that the curriculum should be experience-centered, but experience-centered in terms of things meaningful to the youth from the standpoint of either their goals or the society in which they live.

The principles of learning developed as a result of educational experiments in clinical psychology support both the basic theses of the early educational theorists and the concepts of John Dewey. Some of the common principles of learning which serve as a basis for instruction in education and certainly have a direct application in the field of vocational education are as follows:

1. We learn best when we are ready to learn. When we have a strong purpose, a well-fixed reason for learning something, it is easier to receive the instruction and to make progress in learning.
2. The more often we use what we have learned, the better we can perform or understand it.
3. If the things we have learned are useful and beneficial to us, so that we are satisfied with what we have accomplished, we retain better what we have learned.
4. Learning something new is made easier if the learning can be built upon something we already know. It is best to start with simple steps which relate to things we can now do or which we already understand.
5. Learning takes place by doing. Before the learning can become complete, we must put into practice what we are attempting to learn.

Vocational education is an experience-centered curriculum, accepting and making application of the basic principles of learning. Vocational and technical education are not disciplines, but they cut across and draw content from a number of disciplines and from the practical work of the world. The contribution of vocational education is the blending of theoretical knowledge from the disciplines with the practical experiences and requirements of entry jobs, recognizing the nature of the work of the world. In vocational and technical education we blend together the principles of mathematics and science, skills and technical knowledge into a mixture which will help youth and adults to enter and adjust to employment opportunities or to upgrade themselves in their chosen field of work.

A preparatory program of vocational education is essentially a "core" program, built around the "pegged-core" concept of Dr. Alberty, Professor Emeritus, Ohio State University. The vocational and technical education programs take the students' choice of occupation as the core of the program and build around this occupational choice the necessary skills, technical knowledge, work habits, attitudes, and job adjustment information necessary to enter employment in their chosen occupation upon graduation.

The principles underlying vocational and technical education, in terms of its goal to serve youth and adults and their needs in preparation for employment, and the principles underlying the organization and operation of such programs are educationally sound. While there have been some failures in the practice of vocational education, such failures have often been caused by a lack of acceptance of vocational education as an integral part of the total educational process and the relegating of students in some centers to vocational education programs in which they cannot succeed. The large majority of the vocational education programs throughout the nation have been successful in providing sound education to youth and adults.

The majority of the criticisms of vocational education tend to come from some major cities in which the facilities and equipment within their vocational programs have become antiquated. The occupational goals of the programs have not changed and broadened with the changing times, but the type of student enrolled has changed to the point where those enrolled cannot succeed in terms of the goals of the programs. Too often, these sad situations are the ones that gain the headlines instead of the large number of high-quality vocational programs operated under public education.

Annually, a follow-up study, in terms of placement of graduates, is conducted in the state of Ohio, and such a study was made in 1964 covering a four-year period of time involving graduates from vocational programs. Annually, the placement of graduates shows the viability of the programs, not only in terms of the overall placement, but also in terms of placement of graduates into the occupations for which they were trained. Only the field of agriculture shows a need for major changes in program orientation in relationship to job placement. The four-year follow-up study completed in 1964 showed that 95 percent of the graduates were employed and that 65 percent of the graduates were working in occupations utilizing directly the skills and knowledges learned in their vocational programs.

A study by the American Institutes for Research dealing with the subject "Vocational Education—The Process and the Product" summarizes the result of their studies covering 10,000 students in 30 states as follows:

> Vocational graduates get their first full-time job after graduation much quicker than do academic graduates. The average time to get a first full-time job for vocational graduates is less than six weeks. Fifty percent get their first full-time job within two weeks after graduation.
>
> Vocational graduates enjoy substantial greater employment security than do academic course graduates without college education. The median 1953–1962 graduate was 95 percent fully employed.

> Vocational graduates have greater accumulated earnings over the eleven-year period covered by the survey than do academic course graduates with no college education.
>
> About 50 percent of the vocational graduates enter into the trades for which trained or highly related occupations. Another 15 percent enter occupations that are somewhat related to the trade studied in high school.
>
> The percentage of vocational graduates who enter the trades for which trained rises and falls with the general level of the U.S. economy. In the recession year of 1958, only 28 percent of the graduates entered the trades for which they were trained.
>
> Negro vocational graduates have more difficulty getting their first full-time job, enjoy substantially less employment security, earn significantly less pay, and are much less likely to enter the trade for which trained than white vocational graduates. Fewer than 17 percent of the Negro graduates were able to get their first full-time job in the trade for which trained. (It should be noted that lack of enrollment is probably due to the lack of opportunity for employment for youth of the minority race in skilled occupations during the period of time covered by the study.)
>
> Of the vocational graduates who obtained jobs in the trade for which trained in high school, 50 percent reported they were "exceptionally well prepared." Another 45 percent reported "on the whole, well prepared."
>
> There is very little mobility among vocational course graduates. Less than three percent obtained their first full-time job by moving to another city. Eleven years after graduation, 87 percent still reside and work in the city in which they went to school. Another ten percent have made only one new city move in the eleven-year period.
>
> A comparison of vocational and academic graduates without a college education reveals no difference in conversational interests, leisuretime activities, and affiliation with community organizations. The findings contradict the contention that the vocational graduates are more poorly educated than academic graduates from the standpoint of education of the "whole person."
>
> While only 15 percent of the vocational graduates went to college, about 42 percent reported having had some type of formal post-high school education. Most attended private and public adult-level trade and technical schools and company courses.

A review also of the Manpower Development and Training programs which grow out of expressed needs for employment on the part of business and industry points to a high correlation between programs organized on this basis and the ongoing vocational programs called "traditional" within the public schools.

Every set of goals for education, starting from the seven cardinal principles of education, following through the ten imperative needs of youth and the developmental needs of youth as expressed by Havighurst, have indicated vocational education as one of the goals of education for those youth who are not preparing for college. Preparation for a vocation has often been established as a goal of education, but ignored in terms of implementation in our secondary schools and post-secondary institutions.

Public education has continued to ignore the earlier maturity of our youth and the importance of goal-centered education for them as they reach the important age of 16. We have recognized the need for changes in education at the point of their physiological change at age 12 or 13, but have failed to give consideration to perhaps the even more important psychological change at age 16. Acceptance of the premise that the theory underlying vocational education is sound imposes a responsibility to look for practices implementing the theories.

ECONOMIC BASIS FOR THE NEED OF VOCATIONAL EDUCATION

The industrial revolution brought on the new age of productivity, providing more goods and more services to more people. While this revolution relieved the backs of men from the drudgery of heavy labor, in many cases it made men slaves to machines, with the men feeding the machines raw material and hauling off the completed work. While skilled occupations were always important and a skilled worker, except in the depression of the 1930's, was always in demand, the mass of unskilled and semi-skilled jobs within industry permitted youth the opportunity of graduating from high school, entering an unskilled job, and then working on the unskilled job until he could obtain a higher position or earn a living at the production-type job.

Our economy is now undergoing a technological evolution in which man has become the master of the machine, rather than the slave. The price of this change is increased skill and technical knowledge in available jobs and the loss of the unskilled job. Secretary of Labor Wirtz made the challenge of the technological age clear in the following statement before a general subcommittee on education in Congress:

> There was a place in the old work force for the boy or girl who left high school, either dropping out, or with a diploma in hand, and entered the work force with no skilled training. He or she could, and did take an unskilled job and worked up from there. Now, such jobs are vanishing, and so, today, there are 700,000 sixteen- to twenty-year-olds out of work and out of school. Every American youngster has to be given today, as a part of his education, some know-how about making a living, which means for a great many of them, vocational education.

A review of a June, 1965, report on unemployment in a midwestern state reveals that when the unemployment of males is considered by each category, the largest percentage of unemployment exisits among the youth between the ages of 16 and 24, and that the vast majority of the unemployed in this category are classed as unskilled workers. A study by the State Unemployment Service of the unemployed youth in this age range indicated that 89.4 percent of this group had absolutely no skills to sell to an employer. The facts point to the great need in the youth group for preparatory training for employment.

The need for upgrading courses for employed workers is in evidence, particularly for the worker 35 years of age or older. Both upgrading and retraining courses are important for the worker in the 45 years of age and over category.

Looking at the pattern for women, we find again that unemployment is highest among the unskilled youth group. A review of the unemployed youth pattern would indicate that there is a need for training girls in occupations other than clerical and business occupations. Consideration should be given for the training of girls and women as cosmetologists, dental assistants, medical assistants, laboratory assistants, and in technical areas, as, food service, food management, and child care workers, etc.

A study of the employment pattern within one midwestern state indicates that in the 1960 census, 7.6 percent of the jobs in the work force were classed as professional, requiring a baccalaureate degree or higher in the field of education. This analysis of jobs available matched the study of the census data which indicated that 7.2 percent of the adults above the age of 21 had a baccalaureate degree from a college or university. As projections indicate that the 7.6 percent of professional jobs in our work force would increase to 11 to 12 percent by 1970, simple arithmetic would indicate that 88 percent of our people are going to be employed in jobs which do not require a baccalaureate degree.

A further study dealing with student educational patterns within this same midwestern state reveals that for every 100 students entering the first grade, 75 will graduate from the ninth grade, 32 will start to college, and 14 will finish college. The 14 finishing college may be the most important in terms of our economic and cultural growth, but the other 86 are also important to our economy and our democracy. Vocational and technical education is concerned with the 86 percent who will enter employment without a baccalaureate degree.

It is a professional person's desire and an administrator's obligation to project his plans as far into the future as possible. It is difficult, however, to talk now about the preparation of youth and adults for jobs to be available in 1980. It is true that for some the academic studies will enhance their chances for employment. The problem, however, is stated succinctly by Grant Venn in the book entitled *Man, Education and Work,* published by the American Council on Education.

> Their assumption seems to be that the best and only necessary preparation for a job today is the longest possible immersion in academic and professional subjects.
>
> This assumption at once fails to heed the factor of youth unemployment and misapprehends the relevance of general education. The liberal or academic studies do enhance the long-range civic and occupational competence of a person; they do not, at least below the baccalaureate degree level, and as a rule, qualify young people for meaningful job entry. The technological work world is one of specialization and sophisticated skills, and being a "bright young man" cuts relatively little ice with employers looking for skills to do some specific kind of work.

It is impossible for those of us in vocational education to project the job pattern in 1980. It is within our range of abilities, however, to provide for sound entrance programs today, and to encourage a flexible curriculum, flexible facilities, and flexible program offerings for those vocational education programs now functioning within our individual states.

Vocational education is not the total answer to the overall unemployment problem resulting from cyclical and structural changes in our employment pattern. Vocational education is one of the answers for the unemployed persons who wish to re-enter the labor market and for those in high school or post-high school levels preparing to enter the labor market for the first time. I would predict that when the answer to unemployment is found, vocational education will have a prominent part in the solution. This prediction is based upon the fact that the new technological evolution, brought about by automation, has placed a premium upon preparation in skills and technical knowledge for new jobs and has diminished the need for the unskilled worker.

As our nation's government works frantically to develop a "Great Society," a greater and greater reliance is being placed upon the concept of education as the only ladder out of a continuous poverty cycle.

AREAS OF VOCATIONAL EDUCATION

Agriculture

Vocational agriculture education offered in the high schools and area vocational schools, and technical agriculture education offered at the technical institutes provide a source of trained people necessary for the agriculture industry of a state. Vocational agriculture education is offered in most rural schools. Specialized programs in horticulture, agricultural equipment mechanics, and non-farm agricultural business and service often can be made available only in area vocational schools and in some of the area vocational centers of our major cities. The teaching of skills, knowledge, and abilities necessary for employment in production and non-production occupations is available to both high school and post-high school students. The high school program through organized class instruction, laboratory experience, and supervised occupational on-the-job experience provides the student with the basic principles in agricultural production, mechanics, management, and leadership. The specialized technical and related instruction given to the eleventh and twelfth year students prepares the students to enter semi-skilled and skilled occupations in agriculture, including farming.

The adult programs in vocational education and agriculture include organized instructional programs for young and adult farmers and others who engage in non-farm agricultural occupations. Manpower programs are conducted for training and retraining individuals for production and non-production agriculture. Special emphasis is often given to the young and adult farmer programs in the area of farm business planning and analysis from which management decisions are evolved.

Home Economics

Vocational home economics today has two purposes in education: (1) to train for homemaking and family living, and (2) to train for occupations directed toward gainful employment. The major areas of homemaking instruction at the secondary level include personal and family relationships, home management, consumer competence and responsibility, care and guidance of children, selection and care of the house and its furnishings, clothing for individuals of the family, and food for the family.

The programs assist women in carrying out their dual role of homemaker and wage earner through services of the adult education program. Through such adult programs, parent education is provided for both men and women.

The training of youth and adults for wage earning occupations under vocational home economics which require home economics knowledge and skills and which lead directly to employment is another function of the program. Such training programs prepare persons to be child care workers, clothing service workers, food service assistants, homemakers' assistants for homes and nursing homes, etsc. Wage earning programs in home economics are developed at the secondary, adult, and technical levels.

Business and Office Education

Business and office education programs have been common in the public schools from the junior high school on. Too often, however, such programs have been a combination of personal use and practical arts, or exploratory functions, and only a limited effort at vocational preparation. A major effort in most such business programs has been in the area of stenography.

Vocational business and office education programs can be established normally for the last two years of high school and in post-high school technical centers to prepare youth and adults for entrance into employment or for upgrading into a higher level job.

Vocational business and office education programs are being developed based upon occupational goals of the students and providing sufficient depth for preparation for entrance into employment. Seven vocational areas have been identified in the field of business and office education, providing opportunities for vocational training in this field in keeping with different interests and different ability levels. Six vocational areas are bookkeeping, clerical, office machines, data processing, secretarial, and stenographic.

As in all areas of vocational education, all of the technical education level programs are at the post-high school centers.

Distributive Education

The distributive education program is concerned with the preparation of people for employment in the areas of retailing, wholesaling, or service. Such programs are normally organized as cooperative programs and offered to juniors and seniors in the public schools as a service to high school students. In such cooperative programs, the students spend half of the day in school and half of the day working in a business establishment in an occupation relating to the distribution of goods or services. In school, the student spends two periods studying merchandising and marketing and completing the school subjects required for graduation.

Post-secondary technical and adult programs are offered in the field of distributive education. They emphasize management areas of retailing and wholesaling, and other areas such as hotel and motel management, food service, etc. Short courses are offered for adults for purposes of upgrading and retraining of those employed in the field of distribution or for those who wish to enter the field.

Trade and Industrial Education

There is virtually no limit to the variety of programs that can be offered in the areas of trade and industrial education. The imagination of the educator, the vocational interests of the students, and the needs of employers for a skilled work force are the only determining factors in the types of programs offered. Trade and industrial education is a balance of study and work experience. This program develops the skills, technical knowledge, understanding, and work habits needed by individuals who desire to enter and make progress in employment. It is of paramount importance that business, industry, and the public be made aware of this type of education and give active support for its further development.

Some of the common areas of trade and industrial education for the high school level include machine trades, auto mechanics, basic electricity and electronics, mechanical drafting, printing, welding, sheet metal work, bricklaying, carpentry, plumbing, and cosmetology.

Post-high school technical education programs fall in the area of those supporting the field of engineering. Upgrading courses are offered in trade and industrial education to employed workers, and preparatory programs are provided for out-of-school youth and adults wishing to enter or re-enter the labor market.

Areas specifically related to public service falling under the classification of trade and industrial education include fire service training, emergency and rescue training, custodial training, law enforcement training, school bus driver training, and training for health occupations. In many states the health occupations may fall under the broad area of trade and industrial education, since the original health occupations programs grew out of the broad concept of public service training in the field of trade and industrial education.

Health occupations training is offered on the skilled or vocational level in both high school and post-high school programs, including preparatory and upgrading training. Post-high school technical programs also are provided in health occupations. Some of the common vocational programs in the area of health occupations at the vocational level include those for practical nursing, dental assistants, medical assistants, X-ray assistants, physical therapists assistants, etc. Associate degree programs for registered nursing would be included as post-high school technical programs in health occupations.

Technical Education

Throughout this paper, reference has been made to technical education as an integral part of a total vocational and technical education program, and reference has been made to technical education as a post-high school program relating to the broad occupational areas. There is an evident need throughout the nation for an expansion of this relatively new field in education, an area of education more practical than the professional and more theoretical than the vocational; an area of education worthy of a unique position within the pattern of education, not as a watering down of professional education, and not as an upward extension of vocational education, but as a unique level of education to prepare persons for new levels of employment in business, industry, agriculture, distribution, health, and the social sciences as para-professionals in a team relationship with a professional. This need is based upon the increasing requirements in the professional field, changes of assignment in the professional field, and the shrinking percentage of professional persons in the population.

Technical education is a segment of education that is growing in keeping with our technological evolution and with the changed needs of both people and business and industry in our economy. This level of education is planned to prepare para-professional people in two-year post-high school programs to work in a team relationship with both the professional people and the people at the skilled or vocational levels of employment.

Technical education is concerned with design, development, testing, supervision, or mid-management functions. The technician does not replace the professional person or the skilled worker. He does, however, enable the professional person to work at his highest level of education and enables the skilled worker to function effectively and economically through the coordinative and interpretive functions which he serves between the professional and the skilled worker.

Examples of the team relationship of the technical level of employment are as follows:

A. *Industrial*
  Professional—Mechanical Engineer
  Technical—Tool and Die Designer
  Skilled—Tool and Die Maker
  Semi-Skilled—Drill Press Operator

B. *Business*
  Professional—Accountant (College Graduate)
  Technical—Business Data Computer Programmer
  Skilled—Unit Record Operator
  Semi-Skilled—Clerk

The possibilities for program development in the field of technical education are limitless. Wherever there is a profession, and wherever the profession will accept a para-professional, two-year post-high school technical programs can be organized to prepare such para-professionals.

PURPOSES OF VOCATIONAL EDUCATION

As indicated earlier, the unique function of vocational and technical education in the total pattern of education is to prepare youth and adults for employment. The concept of preparing a person for employment, however, now must go beyond the concept of providing skills and technical knowledge necessary for entrance into employment. Vocational and technical education must accept the responsibility of preparing persons for employability. Skills and technical knowledge are essential and basic to employment, but our modern society places additional demands upon the person desiring to enter business and industry.

These additional concerns involve literacy, mental and physical health, work habits and attitudes, interpersonal relationships, motivation, and acceptance of responsibilities of citizenship in his place of employment and in his community.

Since the original vocational education act in 1918, vocational education has assumed a responsibility for services to different age levels of students. Skill level programs were offered for high school youth in the areas of agriculture, distribution, homemaking, and trade and industrial education. For those students with average or better I.Q.'s, post-high school vocational programs were offered on a preparatory basis, but such programs have not been as numerous as the vocational programs for high school youth, even though our changing patterns of employment and the growing unemployed group in the ranks of the unemployed present a social problem. Additionally, vocationally, vocational education has served in a commendable manner the employed adults who need instruction for upgrading and apprentices who need related technical instruction. Vocational education, however, tended to ignore the needs of the less able students, the needs of the unemployed adults, and the need for a massive expansion of vocational education opportunities in a variety of occupations.

The Vocational Education Act of 1963 and the Manpower Development and Training Act of 1963 both pointed the way toward a broad expansion, not only in the numbers enrolled in vocational education, but also in the responsibilities to be assumed by public vocational education if it is to prevent the establishment of a national system of vocational education.

Under the National Defense Education Act of 1958, which predated the two acts mentioned above, vocational education was given the impetus to expand the area of post-high school technical education for the more able out-of-school youth and adults. Vocational education accepted the responsibility to add this very desirable program to the vocational education offerings without a question.

The two 1963 acts mentioned above directed vocational education to become more concerned with the underprivileged, the unemployed, and the disadvantaged people in terms of the great social needs of our modern economy. Vocational education, therefore, now has the responsibility of serving socially and economically deprived students, the less able and the underachievers, the average students, and the above average students. Vocational educators have been directed to have a concern not only for the skills and technical knowledges of youth, but also for the physical, mental, social, economic, and educational needs of youth and adults.

One State Superintendent of Public Instruction placed the challenge before his Division of Vocational Education staff in this manner: "Yes, I know that you cannot enroll low ability students in a high-skill vocational program; but my challenge to you is to develop a vocational program to meet the needs of the less able student." The opportunity to serve the socially and economically disadvantaged and less able and underachieving students provides a challenge to the field of vocational education. With state and federal funds providing the flexibility for programming, including the opportunity to provide paid employment under the work-study program of the Vocational Education Act of 1963 to those students who need money to stay in school, many states are making progress in the establishment of programs planned specifically for this group. Such programs are based on preparation for occupations within the ability and interest range of the group to be served. Programs planned for the less able and underachievers normally point toward the semi-skilled or single-skill occupations and are identified as occupational level programs so as to place them in a proper perspective with the vocational skill level and the technical level programs.

Experiences with dropouts enrolled voluntarily in a residential center established with the help of Manpower Development and Training funds at the Youngstown Air Force Base, near Youngstown, Ohio, revealed the fact that over 50 percent of such dropouts had measurable physical rehabilitation problems that had never been considered during the school career of the youth. As a result of this finding, an effort is being made to establish a rehabilitation evaluation unit in cooperation with each area vocational school established in Ohio.

Experiences with a work laboratory giving work experience to less able youth prior to placement in business and industry in a semi- or single-skill occupation, combined with the concepts learned at the residential center referred to above, have given birth to the idea of a center for school disoriented youth for the major cities in Ohio. Plans for the center envision a program oriented heavily toward rehabilitation.

The purposes established for vocational education are broad enough to be concerned with the needs of any youth or adult desiring preparation for employment, retraining for re-entry into the labor force, or upgrading for the employed worker who faces new tasks or wishes to prepare for advancement. The only limitations to the breadth of services of vocational and technical education are interest; ability to plan, innovate, and implement new programs; and the availability of sufficient dollars to do the job.

QUALITY AND QUANTITY IN VOCATIONAL EDUCATION

Quality

Flexibility is important in the area of vocational education, in terms of curriculum, facilities, and program offerings. But it should not imply a lowering of the investment of time by students in a program of vocational education in order to enhance their opportunities to enroll in the college preparatory courses of mathematics and science and other related disciplines. There is a real question as to whether this type of flexibility improves either the vocational education or the ability in mathematics and science.

The Division of Vocational Education in Ohio, in cooperation with the Ohio State University, has completed two research studies involving the question of depth of training for students enrolled in vocational education. From one study, it is evident that students enrolled in depth programs of vocational education in the trade and industrial field achieved significantly higher scores on trade achievement tests than did those students who enrolled in programs requiring less of the students' time for vocational education and making available a greater portion of the students' time for liberal and academic studies.

A further study of the report reveals that students enrolled in a more flexible program, requiring less time in vocational areas, did not achieve more in the areas of mathematics and science than did those enrolled in depth programs of vocational education. To the contrary, those students who remained in depth programs of vocational education requiring instruction in the math and science related to their trade showed a significantly higher achievement in the understanding of principles of mathematics and science than did the students in the so-called "flexible programs." Too often, the value of sound vocational education programs to the total educational process has been adversely attacked by those with the idea that a college preparatory program is the "general education" curriculum that all students can and should follow.

The contribution of vocational education to the total curriculum is alluded to by Dr. Conant in the January issue of *Changing Times*. Dr. Conant was asked the question, "Suppose that one or more of the children in a family are not interested in going to college?" His answer was, "Along with its academic courses, the high school should offer a vocational program. Thus, a boy could develop an occupational skill which would interest him, such as automobile mechanics, tool and die work, or carpentry. This would also stimulate him to learn mathematics, history, social studies, and English, since he now would see the point of it all. Girls might take such courses as stenography, typing, or home economics."

The research study reported earlier as conducted by Ohio State University has indicated that for students other than the college bound, interest and achievement in the areas of mathematics and science can be encouraged by the following conditions:

1. The instruction is a required part of the vocational program.
2. The instruction is provided in a block of time separate from the skill instruction, but correlated with such skill instruction.

3. The students are taught in homogeneous groups according to the occupational area in which they are enrolled (i.e., machine trade, auto mechanics, etc.)
4. The principles of science and functions of mathematics should be taught in relation to the real problems in the occupation for which the student is preparing.
5. The principles of science and the functions of mathematics are selected on the basis of applicability to the occupational area and taught at the "applied" rather than at the "proof" level.

A report from one major city indicated that less than 15 percent of the students were enrolled in the higher mathematics and science courses at the eleventh and twelfth year levels. A much higher percentage of the students need mathematics and science following graduation. Not all students need the "proof" type of mathematics and science provided in the college preparatory mathematics and science courses. The students who are not going on to college do not have the goal orientation necessary to encourage success in the college prep classes, and many do not have the aptitude or ability to succeed.

Often, a next attempted solution is the establishment of general, shop, or applied mathematics courses which place all students not in the college preparatory courses in common classes together with all vocational students. The history of such courses has been poor. The goal orientation in such classes is no clearer for students not planning to go on to college than in the college preparatory courses, even though the content may be functional or applied (functional in what way? applied to what?). What does the boy in an auto mechanics vocational program or in vocational agriculture care about the functions of trigonometry as applied to the machine trade? As a matter of fact, why should the boy in auto mechanics be required to learn to use the functions of trigonometry? Unused knowledge is soon forgotten, and the auto mechanics student has no use for trigonometry.

Vocational education should not be considered primarily as a means to teach principles of mathematics and science, but as a program which includes instruction in such principles as a means of reaching the goal of preparing students to live and to earn a living.

Quantity

Vocational programs prepare students for entrance into a family of occupations, not into "a job." As an example, vocational training in the auto mechanics field would be basic to approximately 750 of the jobs listed in the occupational handbook. A comprehensive program will offer a wide variety of programs to meet the interests and abilities of students at the high school level and of out-of-school youth and adults.

In the development of a Master Plan for Vocational Education in Ohio, C. O. Tower, Supervisor of Research and Surveys, Division of Vocational Education, developed the following concepts concerning the size of a vocational program.

He suggests that at least three factors should be considered: (1) breadth of program, (2) costs, and (3) pupil travel time. Table 1, Recommended Minimum and Optimum Enrollments for Vocational Schools, presents the number of programs in each of the vocational areas for recommended minimum and optimum size vocational school. It also presents normal and maximum enrollments for such centers. Table 2, Size of Joint Vocational or Intermediate Districts for Recommended Vocational Schools, presents pupil populations of such districts to produce the enrollments for recommended minimum and optimum size vocational schools. Item 2 assumes that approximately 33⅓ percent of the graduating class will continue to post-high school higher education and that vocational education will be provided in grades eleven and twelve for 50 percent of the non-college bound. Item 3 is 8.2 times item 1. This is the ratio of total enrollment, K–12, to grades eleven and twelve. Item 3 is the needed pupil population of a joint vocational or intermediate district for a minimum vocational school and the size of the district which can justify an optimum scope of vocational offering. Joint vocational or intermediate districts can serve a larger student body but should consider more than one vocational center as the school district student population approaches 70,000. This would produce two vocational schools of approximately 1,400 pupils each.

Minimum Enrollments

Table 3, Recommended Vocational Programs and Related Information for Illustrative Schools of Various Sizes, summarizes the number of programs, capital outlay per pupil, and operating cost per pupil for each school.

TABLE 1

Recommended Minimum and Optimum Enrollments for Vocational Schools

	Minimum size school			Optimum size school		
Vocational areas	No. different programs	Enrollment normal	Enrollment maximum	No. different programs	Enrollment normal	Enrollment maximum
Agriculture Education	2	70	100	6	210	300
Business Education	3	120	150	9	360	450
Distributive Education	1	20	30	3	60	90
Home Economics Education	1	40	50	3	120	150
Trade & Industrial Education	5	200	250	15	600	750
TOTAL	12	450	580	36	1,350	1,740

TABLE 2

Size of Joint Vocational or Intermediate Districts for Recommended Vocational Schools

Item	Minimum population	Optimum population
1. Vocational Pupils From Table 1	580	1,740
2. Total Pupils Grades 11 and 12	1,740	5,220
3. Total Pupils Intermediate School District	14,268	42,804

TABLE 3

Recommended Vocational Programs and Related Information for Illustrative Schools of Various Sizes

Item	Pupil enrollment							
	408	620	1,004	1,379	1,719	2,109	2,339	2,779
1. **Enrollment ÷ 50**[1]	8	12	20	28	34	42	47	56
2. Number Different Programs	15	16	22	27	33	36	39	41
3. **Capital Outlay Per Pupil**	$3,994	$3,136	$2,858	$2,589	$2,500	$2,453	$2,415	$2,363
4. **Operating Cost Per Pupil**	$ 519	$ 517	$ 480	$ 479	$ 477	$ 474	$ 478	$ 467

[1] Maximum number of programs for pupil enrollment with full utilization of building.

Most shops and laboratories can accommodate 50 pupils in two sections. A drafting room can accommodate 60 pupils, but a cosmetology laboratory can accommodate only 40. Therefore, if we divide the enrollment of a vocational school by 50, we will obtain the approximate number of different programs that the pupil population can support with full utilization of the facilities; see item 1, Table 3.

Start with a school enrollment of 1,379 (see Table 3). The enrollment divided by 50 gives 28 programs. The table further shows that as the schools become smaller, the number of different programs which the enrollment will support decreases to 12, then 8. As schools become smaller, the breadth of the program must be reduced to those common areas of training with greatest employment. In order to minimize this reduction in the breadth of programs in the illustrative schools of less than 1,379 enrollment, class size has been reduced and grade levels combined. This consequently reduces the utilization of the building and increases the capital outlay per pupil: $2,589; $2,858; $3,136; $3,994; and operating cost per pupil: $479; $480; $517; $519. Below an enrollment of 620 pupils in the vocational center, a satisfactory breadth of program can be maintained only by increasing the cost.

Optimum Enrollment

Table 3 also shows that, as schools become larger, the number of different programs (see item 2) increases to 33, 36, 39, then 41. The enrollment divided by illustrative schools. As schools become larger, the breadth of the program can increase into those areas with less employment. Although the increased enrollment gives sufficient program selection by pupils to justify opening new courses, it also increases program selection by pupils to more than one shop in the more common areas. Therefore, duplicate programs must be added. As we move upward and pass enrollments of 1,719, the breadth of programs does not increase in proportion to enrollment increases, and the capital outlay per pupil ($2,453; $2,415; $2,363) and operating costs ($474; $478; $467) are reduced very little.

Vocational education pupils travel additional time from resident school to joint vocational school. Since they ride to resident schools with other students, this extra transportation must be taken from class time. Class schedules of vocational pupils should not be reduced more than one hour per day. It appears that a vocational school of more than 1,700 pupils reduces costs very little, adds new programs in areas not offered by smaller schools but not in proportion to increased enrollments.

Conclusions

Mr. Tower suggests that the minimum enrollment for a vocational school should be approximately 600 pupils, and consequently a joint vocational or intermediate district of approximately 15,000 students, in order to give an acceptable vocational program. It also appears from this study that little is gained by increasing the enrollment above 1,700, which would have a corresponding joint vocational or intermediate district of approximately 42,000 pupils. It should be kept in mind, however, that a joint vocational or intermediate district does not have the limiting factors by being larger than 42,000 that it does by being smaller than 15,000, as it can operate two vocational schools.

In looking at the area post-high school technical education programs, the Ohio Board of Regents also indicated that a viable technical education program would enroll no fewer than 500 students in order to provide economically the minimum comprehensiveness of program. A sample minimum scope program in technical education might include:

A. *Engineering*
   1. Mechanical Technology
   2. Electronic Technology
   3. Chemical Technology
   4. Metallurgical Technology
   5. Civil Technology

B. *Health*
   1. Dental Laboratory Technology

C. *Business*
   1. Computer Programming Technology
   2. Junior Accounting Technology

D. *Distribution*
   1. Retail Mid-Management Technology

E. *Agriculture*
   1. Agriculture Business Technology

No studies have been made to indicate either the optimum size or the maximum size in relation to post-high school technical education units, since this area is still in its developmental stages most states. Studies suggest, however, that even the minimum comprehensiveness in technical education identified above could be supported only in population areas of not less than 75,000 to 100,000.

TABLE 4
Programs Illustrative of Vocational Offerings in Joint Vocational Schools by Size[1]

Vocational Education programs	Enrollment							
	Additional enrollment usually provides greater breadth of offerings						Additional enrollment usually does not provide greater breadth of program	
	408[2]	620	1004	1379	1719	2109	2339	2779
TOTAL: Vocational Education	15	16	24	31	39	46	50	58
Agricultural Education								
Agriculture Business	X	X	X	X	X	X	X	X
Agri. Equipment & Mechanics				X	X	X	X	X
Agriculture Processing					X	X	X	X
Agriculture Production	X	X	X	X	X	X	X	X
Forestry Conservation		X	X	X	X	X	X	X
Horticulture		X	X	X	X	X	X	X
Business Education								
Account Clerk Bookkeeper			X	X	X	X	X	X
Clerical Services—DAVY								
Cooperative Office							X	X
Education	X	X	X	X	X	X	X	X
Entry Business Data Processor	X	X	X	X	X	X	X	X
High Speed Stenographer				X	X	X	X	X
Medical-Dental Clerk Steno								X
Off. Dup. Reproduction Spec.						X	X	X
Office Machine Operator					X	X	X	X
Senior Intensive Core	X	X	X	X	X	X	X	X
Distributive Education								
Distributive Education	X	X	XX	XXX	XXXX	XXXXX	XXXXXX	XXXXXXX

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[1] Program offerings in a joint vocational school are designed to meet pupil as well as local, state, and national labor needs. Therefore, it must be understood that a school may or may not offer some listed course(s). Moreover, these tabulations are not to be construed as minimum program requirements, nor that a school of a certain size must offer only these programs. It must further be understood that each school is evaluated upon the degree to which the program(s) satisfy the needs of the pupils, the community, and local, state, and national labor needs.

[2] This scope of program cannot be offered economically on the basis of this number of students. Most facilities are used half time.

TABLE 4 (cont.)

Programs Illustrative of Vocational Offerings in Joint Vocational Schools by Size[1]

Vocational Education programs	Enrollment							
	Additional enrollment usually provides greater breadth of offerings						Additional enrollment usually does not provide greater breadth of program	
	408[a]	620	1004	1379	1719	2109	2339	2779
Home Economics Education								
Child Care Aide 1-year or Child Care Assistant 2-year	X	X	X	X	X	X	X	XX
Clothing Service 1 or 2-year						X	X	X
Food Service 1 or 2-year			X	X	X	X	X	X
Home Makers Assistant 1-year or Aide for Nursing and Rest Homes	X	X	X	X	X	X	X	X
Trade and Industrial Education								
Industrial Maintenance Mech.								X
Industrial Lab Assistant							X	X
Small Engine Repair							X	X
Appliance Repair					X	X	X	X
Automobile Body Repair			X	X	X	X	X	X
Automobile Mechanic	X	X	X	X	X	XX	XX	XX
Architectural Drafting	X	X	X		X	X	X	XX
Mechanical Drafting				X	X	X	X	XX
Carpentry			X	X	X	X	X	X
Commercial Art				X	X	X	X	X
Cosmetology				X	X	XX	XX	XX
Home Economics Education								
Child Care Aide 1-year or Commercial Food Production			X	X	X	X	X	X
Dental Assistant				X	X	X	X	X
Electrical	X	X	X	X	X	X	X	X
Electronics and T.V.				X	X	X	X	XX
Fabric Service						X	X	X
Machine Shop	X	X	X	X	X	XX	XX	XX
Metal Fabrication					X	X	X	X
Welding	X	X	X	X	X	X	X	X
Printing			X	X	X	X	X	X
Diversified Coop. Training	X	X						
Occupational Work Experience			XX	XXX	XXXX	XXXX	XXXX	XXXX

ORGANIZATION FOR VOCATIONAL AND TECHNICAL EDUCATION

Vocational Education

Outside of our large cities very few school districts as they are now constituted in most of our states can offer a comprehensive program in vocational education. As indicated in the previous section, studies would indicate that a minimum of 500 students should be enrolled in vocational education programs in order to provide for a minimum scope of offerings. Experiences in Ohio would indicate that the enrollment of 500 students in vocational education at the eleventh and twelfth grade levels would require an enrollment of 1,500 students in the upper two grades of the school or schools participating in the vocational programs. Likewise, to meet a desirable program as outlined in the previous section, enrollment of 1,300 students in a two year program would require an enrollment of 4,000 students in the upper two grades of the high school. A vocational program is dependent upon its breadth in order to reach the different interests and ability levels of the students. The opportunity to provide this breadth is based upon:

1. The availability of sufficient tax base to support the necessary construction, equipment, and operation.
2. A sufficient student base to provide an economical enrollment in the individual programs offered.

Experiences in Ohio have indicated that area centers can be established to serve a number of school districts, with the area centers serving as an extension of each of the participating schools. Under this plan, students in the last two years of their public school experience may enroll in the vocational center on a full-time basis, but continue their registry and official relationship with the local school district. The students are officially members of the school districts participating in the area centers and may participate in athletics and extracurricular activities. Students graduate from the local school district, rather than from the area vocational school. A pattern of taxation provides for the funding of local tax levies and bond issues in the same manner as they are voted by other school districts, even though the area school district is superimposed over that of the participating school districts. On the basis of the broad tax base gained by the joining together of a number of districts, the tax rate for construction and operation normally will run between two to three mills on the total tax.

Experience has indicated that joint vocational school districts can provide many services to the participating districts in addition to that of providing vocational education programs for out-of-school youth and adults, and in some cases serve as a center for post-high school technical education. The area vocational school becomes a center not only for instructing high school youth, but also for retraining unemployed out-of-school youth and adults and upgrading instruction for employed workers.

Experience in one midwestern state would indicate that joint vocational school districts can include an area measured in time of travel of thirty to forty minutes from the farthest home school to the area vocational center. However, in sections of many states, it is impossible to bring together sufficient students from the high school level to provide even a minimum comprehensiveness in the field of vocational education. In these cases, the travel distances make daily commuting an impossibility.

There is no evidence or experience which indicates that mobile units can do more than orient students to occupational areas. Mobile units can neither provide the type of equipment or the breadth of equipment necessary to prepare for adequate entrance into a vocation. Likewise, the amount of time a mobile unit would be available to a school would not give the opportunity to develop any depth of skill or technical knowledge.

In areas of such sparse population, consideration must be given to residential centers at either the high school or post-high school level.

Large cities of 200,000 population or over normally can offer a comprehensive vocational program without joining with other school districts. Some organizational patterns for vocational education in the larger cities and their strengths and limitations are as follows:

I. *A series of vocational high schools, with broad programs corresponding to the needs of the students, with the district high schools providing limited vocational education programs, such as distributive education.*

The areas of vocational education included in each district high school would need to be limited to those areas in which the possibilities for employment are adequate within the city or region for the number that would be prepared. In both the vocational high school and the district high schools, the vocational programs would be limited to the eleventh and twelfth years, or the last two years of a student's school career.

A. *Strengths*

1. Provides administration by people highly qualified to direct vocational education activities.
2. Provides economy of equipment and facilities.
3. Recognizes vocational education programs as an important field of education not to be relegated to secondary status.
4. Provides direct relationships with business and industry.
5. Serves the needs of out-of-school youth and adults, as well as those of high school youth, on an economical and effective basis for day, late afternoon, evening, or night programs, since vocational education areas are concentrated.
6. Develops a necessary emotional state of belonging to, a pride in, and a satisfaction of participating in extracurricular activities within the vocational high school.

B. *Possible Limitations*

1. Affects the entrance into certain colleges for a few students due to the lack of certain college preparatory offerings in the curriculum such as foreign languages.

2. Separates students planning to enter employment upon graduation from those planning to enter college.
3. Enrolls qualified youth in proportion to the understanding that administrators have of vocational education and to the encouragement of qualified youth to attend.

Item 3 is a limitation only when administration of the school system does not understand the place of vocational education in the total program, and therefore has not provided the necessary administrative relationships and in-service teacher education so that professional personnel will encourage students to enroll in vocational high schools on the basis of goals, interests, and abilities.

II. *Vocational education service centers offering vocational programs and enrolling students from a number of district high schools in the eleventh and twelfth years, or the last two years of a student's school career.*

Under such an arrangement, each of the district high schools would offer areas in vocational education as described in I. Under this organizational pattern, schools could be organized on a pattern such as 6-4-2, or pupils could be encouraged to enroll in the vocational education service center at the beginning of the eleventh year on the basis of needs and interests. Under this arrangement, the students could either become members of the vocational education service center or remain members of the district high school for purposes of extracurricular activities, sports, and graduation.

A. *Strengths*

1. Provides more effective use of expensive equipment and facilities than the vocational high school, because the facilities and equipment are used only by students enrolled in the vocational program and not by pre-vocational students in the ninth and tenth grades of a vocational high school.
2. Provides possibility for students participating in such vocational education service centers to take the required academic subjects at the vocational service center or in their district high school.
3. Provides administration by people highly qualified to direct vocational education activities.
4. Provides direct relationships with business and industry.
5. Serves the needs of out-of-school youth and adults, as well as those of high school youth for day, late afternoon, and evening programs on an economical and effective basis, since vocational education areas are concentrated.

B. *Possible Limitations*

1. Enrolls qualified youth in proportion to the understanding administrators and teachers have of vocational education and to the encouragement of qualified youth to attend. (This can be minimized through proper guidance and counseling, and administrative and teacher attitudes as evidenced by enrollments in joint vocational school districts.)

2. Limits extracurricular activities, since pupils change schools in the middle of their high school career, except for those who return to their district high schools.
3. Separates students enrolled in vocational education service centers from those completing their college preparatory programs in the district high schools.
4. Affects the entrance into certain colleges for a few students due to a lack of certain college preparatory offerings in the curriculum, such as foreign languages.

III. *A vocational education service center combined with one of the district schools of the school system.*

Under this organizational pattern, a vocational education service center, such as that identified in II above, would be attached to a district high school which would be offering the usual high school program including college preparatory courses, etc. Under this organizational pattern, students from other district high schools would attend the service center for vocational education purposes, and would remain attached to their own district high school.

A. *Strengths*

1. Provides effective use of expensive equipment and facilities.
2. Provides possibility for students participating in such vocational education service centers to take the required academic subjects at the vocational service center or in their district high school.
3. Provides administration by people highly qualified to direct vocational education activities.
4. Provides direct relationships with business and industry.
5. Serves the needs of out-of-school youth and adults as well as those of high school youth for day, late afternoon, and evening programs on an economical and effective basis, since vocational education areas are concentrated.
6. Maintains relationships of vocational education students with students in college preparatory programs.

B. *Possible Limitations*

1. Leaves students from the district high schools other than those to which the service center is attached virtually in an "enemy camp" as concerns sports, extracurricular activities, loyalties, etc., unless they transfer to the district high school.
2. Affects the organization and operation of the vocational education programs by the more restrictive scheduling practices of the district high school programs.
3. Provides an atmosphere for the operation of the law of social gravity in which emphasis tends to flow toward the highest level of academic training, so that the vocational education programs acquire secondary status.

IV. *Offer some vocational programs in each district high school, with enrollment of students in these high schools on a full-time basis determined by interests, goals, and abilities.*

Under this organizational pattern, students would enroll in their district high schools, and at the eleventh year they would be encouraged to transfer to and become a member of a district high school in keeping with their interests, goals, and abilities.

A. *Strengths*

1. Maintains relationships of vocational education students with students in college preparatory programs.
2. Develops loyalties and relationships within the one high school.
3. Enables the school district to show on an overall basis a rather comprehensive vocational education offering.

B. *Limitations*

1. Requires transporting students at times across town to a different district high school to enter an area of instruction of their choice.
2. Serves inefficiently the needs of out-of-school youth and adults for preparatory vocational and technical education, retraining for the unemployed, related instruction for apprentices, and up-grading instruction for adults.
3. Diverts attention from administration of vocational education programs, because the school is concerned predominantly with academic facets of the school program.
4. Restricts flexibility for vocational education curriculum, due to the many scheduling problems within a district high school.
5. Leaves students from the district high schools other than those to which the vocational program is attached virtually in an "enemy camp" as concerns sports, extracurricular activities, loyalties, etc.
6. Restricts in a sense the offerings in vocational education programs to those offerings within the school district because of the likelihood that students would attend their own district high school.
7. Transfers pupils so frequently that they fail to establish loyalties and a necessary emotional state of belonging to or the satisfaction of identifying themselves with any school.

V. *Offer some vocational education programs in each district high school with students enrolling in their school district and attending another district for vocational education, but remaining a member of their own district high school.*

Under this organizational pattern, students would enroll in their district high school, and at the eleventh year would be encouraged to attend, for vocational education purposes only, the district high school which offers the area of vocational education in which they are interested. The students would remain members of their district high school for purposes of sports, graduation, and extracurricular activities.

A. *Strengths*

1. Maintains relationships of vocational students with students in the college preparatory program.
2. Provides an economical comprehensive vocational education program, looking at the city as a whole.

B. *Possible Limitations*

1. Serves inefficiently the needs of out-of-school youth and adults for preparatory vocational and technical education, apprentices, and upgrading instruction for adults.
2. Requires transporting students at times across town to different district high schools to enroll in the area of instruction of their choice.
3. Diverts attention from administration of vocational education programs because the school is concerned predominantly with academic facets of the school program.
4. Restricts in a sense the offerings in vocational education programs to those offerings within the school district, because of the likelihood that students would attend their own district high school.
5. Restricts flexibility for the vocational curriculum, due to the many scheduling problems within a district high school.
6. Requires students from one district high school to be divided among several other high schools in terms of their educational goals.
7. Requires student enrollment in district high schools in which pupils have no loyalties and are not a part of the extracurricular activities.
8. Leaves students from the district high schools other than those to which the vocational program is attached virtually in an "enemy camp" as concerns sports, extracurricular activities, loyalties, etc.
9. Provides an atmosphere for the operation of the law of social gravity in which emphasis tends to flow toward the highest level of academic training, so that the vocational education programs would become secondary.

In considering any organizational pattern, the following principles should be considered:

1. The organizational pattern should provide for a comprehensive program of vocational education.
2. The pattern of organization should not force students to enroll in an "enemy camp" (i.e., a rival "comprehensive" school with which they compete in athletics).
3. The pattern of organization should not establish impossible transportation demands.
4. The pattern of organization must have the support of administrators, guidance counselors, and parents, and acceptance by the teacher group.
5. The pattern of organization must provide for administration of the vocational programs by persons competent in the field of vocational education.

6. The pattern or organization must provide for freedom of scheduling essential in the area of vocational education without the straitjacket of the normal high school subject-centered curriculum.
7. The pattern of organization must be such as to provide for services to out-of-school youth and adults on a broad basis.

Technical Education

The most common organizational patterns for technical education and some of their strengths and limitations are described as follows:

I. *A technical education center functioning in cooperation with an area vocational education center, both administered by one authority with one tax base for both.*

Under this arrangement the local taxing authority is normally required to pay a portion of the building costs and operating costs. Such programs normally receive reimbursement from state and federal agencies through the State Board of Education and/or a State Board of Higher Education. The technical institute programs in such joint ventures should be permitted to grant the associate degree for those programs meeting the standards of the state operating units.

A. *Possible Strengths*

1. One tax base and taxing authority for both the area vocational and technical education programs.
2. One board of education to administer the two programs.
3. Possible savings in administrative costs for direction and supervision.
4. Possible savings in costs of materials and supplies.
5. Dual use of certain expensive laboratory facilities and of certain common service centers, such as heating, cafeteria, laboratories, etc.
6. A service center providing a continuing education in non-baccalaureate degree education, starting with vocational education at the high school level, and with provisions for vocational and technical education of a preparatory and upgrading nature on the post-high school level.
7. One relationship with industry for programs in which their advice and counsel must be sought on a continuing basis.
8. Technical education becomes a premium program in this organizational pattern, since it is the unit of highest status.
9. Emphasis in technical education in this organizational pattern tends to remain focused on its purpose of preparing youth for entrance into technical employment rather than upon continuation toward a baccalaureate degree.
10. There is less chance for the programs to become inclined toward a duplication of the first two years of a baccalaureate degree program.
11. The administration of the program will be in the hands of people concerned with vocational and technical education rather than baccalaureate degree education.

12. The local control inherent in this organizational pattern will encourage adjustment of the programs to meet the needs of both people and business and industry.
13. Local funds assist with both the construction and operation of the program.
14. Technical education is placed within a reasonable driving distance of the homes of the students.
15. Due to local and state participation in the construction and operation, the cost of technical education to the student is maintained at a reasonable rate.

B. *Possible Limitations*

1. The State Board of Regents is reluctant to approve the granting of the associate degree to any educational agency not operating under the control of an institution of higher learning or operating under the direct administrative supervision of the State Board of Regents.
2. Under this arrangement technical education must be sold to students on the basis of the merits of a technical education program without the stimulation that occurs when students believe they are enrolling in a baccalaureate degree program.
3. Students from such programs will not automatically acquire baccalaureate degree credit, but must have their credits evaluated by an institution of higher learning if they decide to go on to a baccalaureate degree program.
4. The present organizational pattern at the state level involving the State Board of Education and the State Board of Regents presents a problem of relationships when cooperative efforts of this type are established.

II. *Technical Institutes*

Separate technical institutes can be organized to provide for post-high school technical education. Under this plan, technical institutes become separate administrative units normally with the taxing authority separate from any other educational unit in a city, county, or counties covered by the technical institute district. Such technical institutes may be assisted financially and supervised by either a State Board of Education or a Board of Higher Education within a state.

A. *Possible Strengths*

1. The purpose of the institute is clearly in the area of post-high school technical education.
2. Under this plan there would be a single administrative organization.
3. The technical education program is the premium program in the institute, since it is the only program.
4. The administration of the program would be concerned primarily with technical education.

5. Relationships can be established with business and industry with regard to this facet of education.
6. The element of local control will encourage the adjustment of the technical education program to both the needs of people and the needs of business and industry.

B. *Possible Limitations*

1. Establishes a separate tax authority for the same tax base as that established for a joint vocational school district.
2. Requires an administrative organization specifically for this one type of education.
3. Certain of the laboratories needed for short periods of time are expensive for use for this one purpose only.
4. There is a duplication of certain laboratories and shop facilities included in a joint vocational school.
5. A curriculum developed with transferability in mind will likely not produce quality technical education.
6. There is a history of the desire of such technical institutes to become four-year degree granting engineering centers.

III. *Community Colleges*

Community colleges are normally organized to provide: (1) transfer programs giving credit toward baccalaureate degree programs at universities and colleges; (2) technical education programs preparing people for paraprofessional occupations, which programs may or may not accrue college credit toward the baccalaureate degree; and (3) community service programs of an adult education nature. In such institutions both the transfer collegiate curriculum and the technical education curriculum lead to a granting of the associate degree upon completion of a two-year program.

A. *Possible Strengths*

1. The community college is community oriented and will give careful consideration to the interests of people and business and industry in the areas served.
2. The community college provides partial local financing for both construction and operation.
3. Technical education is placed within a reasonable driving distance of the homes of the students.
4. Due to local and state participation in the construction and operation, the cost of technical education to the student is maintained at a reasonable rate.
5. Costs of administration for a college transfer program and the technical education program are reduced by reason of the one administrative board.
6. Under this plan there would be a single administrative authority.
7. The program remains responsive to changing needs within the local area.

B. *Possible Limitations*

1. A curriculum developed with transferability in mind will likely not produce quality technical education.
2. The community college represents a separate tax authority which may be in addition to a joint vocational school district, and could be in addition to a branch university center.
3. Such community colleges may tend to grow into four-year collegiate institutions, in which cases the two-year technical programs receive less emphasis, since the emphasis tends to be placed upon the professional areas.
4. On the basis of the law of social gravity, finances and emphasis in a community college tend to move toward a collegiate transfer program, rather than a technical education program. Also, enrollment tends to follow the law of social gravity unless the students in the technical programs are pacified by the granting of baccalaureate degree credit for the curriculum completed.

IV. *University Branches*

A university branch is a local part of a sponsoring university, but is located in an urban area separate from the main campus. The purpose of the university branch is to decentralize the lower division of instructional activities in a state assisted university. The university branch is tied to and administered by the parent university, and the programs and standards are expected to be those of the parent university. The university branches in some states can legally offer technical education programs.

A. *Possible Strengths*

1. Technical education students who change their goals and decide to pursue baccalaureate degree programs may find it easier to obtain recognition of course credits by the parent university.
2. The status symbol attached to the university will tend to encourage enrollment of students into the programs, many on a part-time basis.
3. The administration and funding of the branch is provided through the parent university under the direction of the State Board of Regents.

B. *Possible Limitations*

1. The tendency in the branch is to organize technical education on the basis of courses offered in the lower divisions of the baccalaureate degree programs.
2. If the baccalaureate degree standards maintained at the central campus are maintained at the branch, many students who could succeed in technical education will be denied entrance or be unable to achieve at an acceptable level.
3. A number of students will enroll in the technical education curriculum on the basis of the status symbol of the university, believing

they are enrolling in a university program. Such students will have little interest in preparing for a technical occupation upon graduation. A great number will enroll on a part-time basis and will never graduate.

4. Most university branches are not adequately equipped with the necessary laboratories and shop facilities to provide for a sound technical education program.
5. Finances available to a university and to a university branch will tend to flow to the programs of highest status, the transfer programs in the branch and the graduate programs on the parent campus.
6. There is a tendency for programs in the university branch to be central campus oriented, with little direct contact with business and industry in the local area to be served, and close relationships with business and industry are necessary for the further development of sound technical education programs.
7. Since the status programs are transfer programs, enrollment in the technical education programs would generally decrease as students feel that they are secondary citizens in relation to the transfer programs.

V. *Colleges and Universities*

Technical education programs operated by universities and colleges tend to have the same possible strengths and limitations as identified for the university branch.

Technical education will grow best if it is identified as a unique program, in a unit separate and apart from institutions offering transfer programs to universities and in a unit in which the students are not looked upon as second class citizens. There is a tendency for technical education organized in relationship to a university to become diverted to the issuance of college credit for the baccalaureate degree.

Technical education in the community college also can be placed in a secondary citizenship role unless there is an intensive effort made on the part of the administration to promote enrollment in identifiable technical education programs and to maintain strong relationships with business and industry in relationship to the goals, curriculum organization, and staffing of the technical education programs.

CONCLUSIONS

Acceptance of the ideas or concepts expressed within this position paper would lead to the following conclusions:

1. Vocational and technical education are essential parts of the modern curriculum for public education.
2. Public education has a responsibility for and an obligation to vocational education for high school youth, out-of-school youth and adults, in terms of preparatory training, retraining, and upgrading instruction for employed workers.

3. The needs of youth and adults for vocational education suggest that a minimum scope of programs requires an enrollment of approximately 500 youth in a center for vocational education. An optimum program of vocational education can be reached with an enrollment of 1300.
4. Needs of out-of-school youth and adults for technical education and the needs of business and industry for graduates of such programs suggest a minimum enrollment of 500 post-high school technical students in order to achieve minimum scope of program.
5. Large cities of 200,000 or more normally have sufficient tax base and student base to provide for a comprehensive vocational education program. Several options are available to large cities in terms of adequate organization for vocational education, but the pattern selected must provide for comprehensiveness of the vocational program in keeping with the nature of the students and the community, and for continuing services to out-of-school youth and adults.
6. Most suburban and rural communities do not have sufficient student base or tax base to provide for vocational education unless such districts join together to provide sufficient student base and tax base to support a comprehensive vocational program.
7. In some sparsely populated areas, it will be impossible to provide even a minimum comprehensiveness of vocational program at the high school level due to the great distances between the school districts involved. In such cases, residential type programs must be considered, either on a high school basis or on a post-high school basis for both vocational and technical education.
8. Vocational and technical education programs are sound educational programs planned to serve the needs of people and of business and industry and deserve the full support of people concerned with the modernizing of the educational program throughout the Nation.

Just as nature deplores a vacuum and makes every effort to fill the vacuum, so society deplores a vacuum in terms of the needs of that society and makes every effort to fill such needs. Public education within the fifty states has a short time in which to accept its responsibility for the total student, including his preparation for employment, and the responsibility for continuing education for out-of-school youth and adults. Unless this need is met by the individual states such an educational program will be provided under the auspices of the Federal Government.

CHAPTER 8

BASIC REQUIREMENTS FOR AN ADEQUATE PUPIL PERSONNEL PROGRAM

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ACKNOWLEDGMENTS

The elements of this report are not new. They may be found throughout the literature which concern guidance and counseling, school psychology, school social work, health services, and so forth. The report does, however, reflect the concern and thinking of a number of counselor educators and state directors of guidance, both past and present, as to what we are going to have to do if the pupil personnel program is to accomplish its goals.

The consultant group listed below met on two different occasions for two-day periods to discuss the problem and had additional periodic informal contacts. The principal concern was the way in which the program should be organized to insure assisting that each pupil will be provided the best qualified service, to mobilize his strengths and resources to his greatest benefit.

CONSULTANTS

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BASIC REQUIREMENTS FOR AN ADEQUATE PUPIL PERSONNEL PROGRAM

American education is a dynamic institution. It attempts to incorporate into its philosophy and practice those concepts, programs, and activities which are most likely to facilitate the maximum development of each individual through education.

Pupil personnel service is one of those recent innovations, in the life space of education, which has been developed to assist in this facilitative process. The origins of these services reflect a variety of concerns for the child and his development. The influence of the mental hygiene movement, the assessment and study of individual differences, compulsory attendance laws, child study, school psychology, school social work, guidance, and health service are noteworthy in their concern for the learner. Schools have incorporated these services whenever possible. Their growth has not been uniform nor have they been particularly well coordinated in their services to the school.

The various specialties generally represented under pupil personnel services have grown in understanding, skills, and techniques in their particular area of specialization. They represent disciplines contributing to the education of the child. In that each contributes to the development of the child, they also share many common understandings, skills, and techniques related to an understanding of the child, his uniqueness, and his potential for change.

An excellent bulletin dealing with the major pupil personnel services is the 1960 report of the Council of Chief State School Officers on the *Responsibilities of the State Departments of Education for Pupil Personnel Services*. This bulletin provides an overview of program objectives, functions, and responsibilities. It is called to the attention of the reader not only because of its excellence and relevance, but also because this position paper accepts most of its statements for its foundations and its recommendations for official programs.

In the deliberations of the consultative panel to this project, several elements seemed to stand out as basic requirements for an adequate pupil personnel program:

1. *Basic Philosophy*
   a. The school, its program, and its personnel must be considered as a resource available to the child.
   b. The specific outcomes sought through these organized services are greater personal development and potential for self-realization.
   c. It is the responsibility of the school to see that each child can exercise his right to receive personal guidance and educational experience of the highest quality commensurate with his needs

and abilities. The concept behind these points is to establish responsibilties and resources so each child will have increased probabilities for success. Stated in its most simple terms, and fully recognizing individual differences, the purpose is to assist our youth to become "winners" when they are able to select from a wide variety of opportunities those experiences which contribute most to their personal development.

2. *Assigned Responsibility.* The guidance of each child is the *responsibility* of some one person and not the generalized responsibility of all the educational staff. The purpose of the program is to direct the responsibility. The remaining staff and programs become resources to the child and his counselor.

3. *Pupil Personnel Administrator.* This is a person trained in the broad area of pupil personnel work with the authority and responsibility to develop and coordinate the work of one or more pupil personnel operational units. This person should be thought of as representing the "Office of" the chief administrative officer at all levels of administrative organizations. At the upper levels of administrative organization, he would serve a leadership and supervisory function, whereas at the operational level one person would be responsible for the coordination of services. The intent is to provide for formal channels of authority and responsibility at all levels.

4. *Operational Unit.* This is the basic and complete unit serving one or more attendance units. It would have as its major functions the assessment, interpretation, and implementation of individual needs.
    a. Assessment—to develop an awareness of *unique individual characteristics.*
    b. Interpretation—to *hypothesize the potential outcomes of possible interaction* of the child's unique individual characteristics and various programs or services available to the child.
    c. Implementation—*to place into programs of highest individual promise* (instructional levels, curricular programs, counseling, psychological service, social case work, special educatoin, etc.).
    d. Evaluation—to evaluate the *progress* of the child and the program in which he has been placed *or to reformulate hypotheses* concerning *more effective placement.*

    It is assumed that to fulfill these functions the operational unit would have available at its command: guidance services; psychological services, including appraisal, treatment, consultation; social service, learning diagnosticians; health services; placement; attendance and such other supporting personnel (clerical and paraprofessional) as needed to meet the needs of the pupils served by the unit. The unit normally would not include instructional functions, i.e., special education, speech correction, etc., although they should be available.

5. *Differential Pupil Personnel Service.* While it is anticipated that each operational unit will have certain core services and programs, high concentrations of special services are needed to help selected children break out of the social and economic bonds inherent in the urban ghettos and isolated rural area. To meet these special needs, differential programs and staffing patterns will be necessary. Major changes can be expected when the area served has high unemployment rates, drop-outs, low family incomes, high delinquency, etc.

6. *Staffing of Operational Units.* Basic minimal staffing should provide for *certified* personnel representing guidance and counseling, school psychology, school social work, and health services. Recommended staff pupil ratios per operational unit:

Pupil Personnel Administration	1
Elementary School Counselor	1:600
Secondary School Counselor	1:300
School Psychologists	1:2000
School Social Work	1:2000
School Nurse	1:2000

It is recommended that maximum ratios not exceed 50 percent. These ratios assume that additional support programs or personnel are available—especially school physicians and health services and community or area agencies for additional psychological and social work referrals. They also assume that additional clerical and nonprofessional assistance is available and that the geographic area is not so large that unusual amounts of time are required for travel.

Special attention is now being given to the use of personnel referred to as sub-professional, paraprofessional, counselor assistant, psychometrist, etc., a counterpart of what some educators are referring to as teacher-aids for the classroom teacher. Under present conditions of increased demands for personnel and increased requirements for training in all educational specialties (current professional recommendations for counselors, psychologist and school social workers is at least a minimum of two years of graduate study, usually with some internship requirements), the ability to recruit fully certified personnel is diminished considerably. At the present time only a few studies have reported the selection and training of such personnel, although it is widely recognized that many counselors and psychologists have trained their secretaries or assistants to provide a number of activities routine to their specialty.

It is the responsibility of the pupil personnel administrator to provide for adequate staffing and for its effective utilization. It is assumed that the administrator will wish to create a blend of specialists and assistants appropriate to meeting the objectives of the pupil personnel program.

7. *Local and Intermediate Operational Units.* An operational unit is defined as the smallest operating unit (team) with basic minimal staffing (see preceding section). It is quite possible that to attain a sufficient pupil population base one unit will need to serve more than one administrative unit, possibly even one or more counties. This latter condition is a distinct possibility in the Great Plains area due to the low population density. It would appear that if a choice is available between the reorganization of small districts (through consolidation) and the establishment of intermediate ditsricts with overlapping administrative and taxing units, then the former is to be preferred, especially for pupil personnel operating units. In other educational areas, particularly selected special education classes and programs in vocational education, intermediate units (or area schools) may be the preferred organization.

   In Missouri, the most populous state in the Great Plains Area, only about 15 percent of the school districts enroll as many as 2,000 pupils—the basic pupil population for a unit. The remaining 85 percent, approximately 410 districts, will need to reorganize or form intermediate units if they hope to be able to offer a minimum pupil personnel program. It is estimated that the 410 districts would need to be merged into about 135 districts if minimum pupil populations of 2,000 are to be achieved. There is little doubt that such reorganization would result in decreased per pupil costs to such an extent that the entire pupil personnel program and other consultants could be subsidized without increased taxes in the area.

   In many rural areas it will be impossible to establish efficient operational units. In these cases special support will be necessary and extensive use will have to be made of mobile laboratories and traveling teams.

   In large metropolitan areas some districts may be so large as to require multiple operational units. It is expected that the most effective units will be those designed to serve from 2,000 to 5,000 pupils and that when the pupil population exceeds this number, a loss in the coordination of services will result. In some pockets of extreme cultural deprivation, units serving 500 pupils may be a maximum.

   It should be recognized that the operational unit is not necessarily centralized. It is expected that some services and personnel will be housed in the attendance units, whereas other services or personnel will be centrally located.

8. *Program Evaluation.* Each program should be developed to meet specific local needs. The program should be "action orientated." The needs should be determined, the objectives stated, procedures outlined, and provisions made for the evaluation of outcomes. The program should be so formally organized that it is capable of review by the state department of education. It is recommended that the

criteria for school classification include not only the qualifications of the personnel and pupil ratios but also an evaluation of the effectiveness of the program to meet the needs of the children served.

9. *Role of the State Department of Education.* The state departments of education will be required to provide a major leadership role in the development of these expanded pupil personnel programs. For the most part this will be an extension of their activities developed during the past two decades. Guidance in particular has made rapid growth during this period. Much of this can be attributed to federal leadership and support through vocational funds, the establishment of state directors of guidance, and state leadership in the development of counselor certification standards and in assisting local schools to develop adequate guidance programs. These leadership activities should be extended to cover the broader base of pupil personnel services including certification of all pupil personnel specialties.

   The state departments of education should locate in their organizational structure an associate superintendent for pupil personnel services at the same level as the associate superintendent for curriculum and instruction and other major areas.

Organizational Structure

State Superintendent of Instruction			
Assoc. Supt. for Curriculum and Instruction	Assoc. Supt. for Pupil Personnel Services	Assoc. Supt. for Research and Evaluation	Assoc. Supt. for Business Operations

In addition to leadership activities, the state department of education should establish *regional coordinating service centers.* The recommendation for these service centers comes as a result of the mobility of our population. With the possible exception of the major cities, most youth move in and out of our school districts many times during the course of their schooling; in the urban and suburban areas, it is rare that a youth finds employment in that same area after completing his education. This situation, coupled with the fact that most guidance and placement programs tend to be rather provincial and restricted to current enrollees and consider placements only in their own districts suggests the need to assist the local programs to broaden their perspective and to utilize services outside their own district. The service provided by the district service center would be to the operating pupil personnel units and not directly to the pupils. Suggested activities:

a. Information concerning jobs and job training opportunities.
b. Liaison with state rehabilitation, employment service, community action, and OEO programs, etc.
c. Development of surveys of graduates and school leavers on a district basis.

d. Providing opportunities for cooperative services between local district programs.

Many of these services are now being provided on an incidental basis by the state departments. The intent is to formally organize these activities and assure their service. These centers should be located in the major population centers with service provided to schools in their general labor market area. It is expected that four to six of these centers would be needed in each of the Great Plains states.

10. *Curricular Opportunities.* Effective curricular and pupil personnel programs are interdependent. Neither program reaches its full potential without the other. No recommendations are made concerning curricular offerings except for the full recognition of the need for enriched educational programs providing for basic, vocational, and avocational needs.

The ability to implement these suggestions is dependent on the availability of qualified personnel, especially pupil personnel administrators. It will be highly desirable that a few pilot programs be supported as models for evaluating program effectiveness.

CHAPTER 9

SIZE AND DISTRICT ORGANIZATION

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INTRODUCTION

During the past thirty-five years a voluminous body of literature and informed professional opinion has been developing on the topic of size in relation to the units of the educational organization which comprise a state school system. Size is most often expressed in terms of pupil enrollment—the number of pupils in an elementary school, a high school, a school district, or an intermediate agency.

Much of the literature is in the form of doctoral dissertations investigating one or more aspects of the size factor. Some consist of well-informed professional opinion based upon the experiences of individuals working in one or more sizes of a particular educational unit of a state school system. Individual research efforts of learned professionals in the field of educational administration, state department of education publications, and statewide surveys, often conducted by state legislative interim commissions or committees, also provide information on this topic.

The assumption seems to be that size is an important factor to consider when a state undertakes the task of organizing its school districts into units which will produce the educational results the citizenry expects for its investment in public education. The literature supports this assumption. However, size in and of itself is not necessarily important; it is related to the objectives upon which a state school system organization is based. Only after such objectives have been carefully developed, studied, and considered does the factor of size become meaningful. To begin a program of school district organization on the basis of size alone would not appear to be a point of departure deigned to meet with great success.

There is suspicion toward increasing the size of the units of state school system structure in these times. While size of a unit in itself has not necessarily caused this attitude of suspicion, it is nevertheless quite apparent. Increased size is often a threat to the autonomy of many units of a state school system; it may even be a threat to the continued existence of many units. Furthermore, increased size, brought about through reorganization, poses a threat of loss of current position for some individuals, especially the chief school administrators of small school districts and the members of boards of education in such school districts. The challenge which emanates from suspicion about larger size, the individual objections of some school administrators, some school board members, and laymen generally, must be forthrightly met by those proposing to change the status quo.

OBJECTIVES AND SIZE

As a state undertakes the rigorous work involved in reorganizing its educational structure to meet the demands of its people in contemporary society, clear objectives must underlie such a program. Failure to develop and state these, and failure to communicate such objectives to those affected, would be grievous omissions in such an important undertaking.

The following are stated as examples of objectives of state programs of school district organization:

1. Each student should have the opportunity to participate in an educational program which will fully meet his individual educational needs.
2. The educational structure of the state shall be organized to provide an equalization of the costs of education throughout the state.
3. The educational structure of the state shall be organized to provide students with well-trained classroom teachers.
4. The educational structure of the state shall be organized to utilize efficiently the specialized and technical school personnel in the state.
5. The educational structure of the state shall be organized in such a way that best use of monies expended for education may be realized.

The above objectives may not be all-inclusive, but they do represent the major aims of program breadth, financial support, well-trained classroom teachers, efficient use of professional staff, and economy in program operation. Let us turn now to the matter of size in relation to these five objectives.

Objective One

Objective One: Each student should have the opportunity to participate in an educational program which will fully meet his individual educational needs. The relationship of this objective to size is clear-cut and concise. This is a basic tenet of our democratic society, and of our school systems, which attempt to fulfill society's goal of emphasizing the importance of the individual. The question is: "How does the organization of a school or a school district relate to this, and why is size important?"

Individuals in our schools have many different educational needs. Therefore, programs to meet individual needs must have breadth. To have a single program which forces all students through an identical educational mold hardly meets this objective.

The literature on the relationship between size of school and educational program breadth is almost unequivocal. Larger schools with greater pupil numbers can and do offer greater program breadth than their smaller counterparts. Exceptions to this statement would be few and would be largely limited to those rare cases where an unusual amount of local wealth supports a small pupil enrollment.

It is impossible (within the scope of this paper) to make a presentation of all the available literature relating to the first objective. However, previous statements do demand some specifics to support the rather strong generalization made. The overwhelming bulk of the literature on program breadth relates size to programs in the secondary schools. Size literature relating to program breadth in elementary schools is noticeably lacking, except for the pupil achievement factor related to size. The available literature on this factor strongly suggests that students enrolled in elementary schools of 2, 3, or 4 sections per grade level tend to score higher on standardized tests than do pupils in schools of lesser size.

Illustrations of the size factor and program breadth at the high school level are included in the following paragraphs plus Table I in the Appendix. Information from one state study, one regional study, and one nationwide study were chosen for illustrative purposes.

A 1966 Illinois study entitled *Education for the Future of Illinois* reported the results of a sample of secondary school program offerings by size of school, using three size categories: (1) under 200 pupils; (2) 400–700 pupils; and (3) over 1,250 pupils. The secondary education program was divided into 13 areas, and the number of credits offered in each area, and in each size category, was determined.

In 10 of 13 curricular areas (except Homemaking, Agriculture, Health-Physical Education) the relationship of size to number of credits was consistent. The larger the size of high school, the greater the number of credits offered in each curricular area. In Homemaking, the largest high school size category offered an average of .2 of one credit more than the middle size category. In Agriculture, the medium high school size category offered an average of 2.2 credits more than the average credits offered in the smallest high school size category and offered an average of .1 of a credit more than both the smallest and largest high school size categories.

A study of all high schools in eleven states, conducted at the George Peabody College for Teachers in 1966 by Joe L. Jackson, carefully examined the size factor in relationship to secondary school program offerings. Jackson used twelve curricular areas to represent the broad scope of the secondary school program. He examined the course offerings in these twelve areas by high school size categories; (1) 99 or fewer, (2) 100–249, (3) 250–499, (4) 500–999, (5) 1,000–1,499, (6) 1,500–1,999, and (7) 2,000 or more. In addition to the size factor, Jackson also used organization pattern-grades 7–12, 8–12, and 10–12 and examined size in relation to organization pattern.

Jackson's research findings indicated that course offerings in both academic and non-academic areas consistently increased in number as enrollment increased, regardless of the grade organizational pattern. Striking differences in course offerings were apparent among the size categories in basic skill areas such as English, Mathematics, Science, and Social Studies. Wide differences have often been pointed out between offerings in basic skill programs and vocational programs. Seldom have the wide differences in course offerings in basic skill courses been pointed out as clearly as in the Jackson study. Using only one organizational pattern—grades, 10-12—the range of courses offered in the English programs varied from 3 to 5 courses in the 99 or fewer pupil category, to 5 to 16 plus courses in the 2,000 or more pupil category. Similar differences in ranges of course offerings were shown in other curricular areas.

A nationwide study published by the Office of Education in 1965, entitled *Subject Offerings and Enrollment in Public Secondary Schools,* examined secondary course offerings by size of high school for the school year 1960–61. Numerous courses in the areas of language arts, social studies, mathematics, science, foreign language, art, music, industrial arts (non-vocational) vocational trade and industrial, and certain business education courses, of the type which are normally considered beyond basic courses, were clearly more often available in the larger public high schools.

Perhaps a statement in the nationwide study "Project Talent" may summarize the relationship which seems to exist between size of high school and breadth of program:

> It would seem that larger school size is a proper and important objective in order to provide a greater variety and depth of course offerings and to make available special services such as groupings, acceleration and guidance.

Objective Two

Objective Two: The educational structure of the state shall be organized to provide an equalization of the costs of education throughout the state. One need only to make comparisons among assessed valuations per pupil in the school districts of a state to see the extremes in the fiscal bases which support the local educational programs.

One midwestern state reported extremes of $2,992 and $166,500 in 1967. The residents of the district with the former assessed valuation per pupil paid 10 mills per thousand dollars of assessed valuation while the residents of the latter district paid 20 mills.

The above illustration points out an important aspect of fiscal inequity which exists in many states. It is especially important that the fiscal resources of a state become available to more students in order to reduce the inequities in educational programs which result from the fiscal inequities. This is especially true in those states which depend upon local tax revenues as the major source of support for the schools.

It is virtually impossible to state precisely how large a school district should be in order to have a solid financial base. Revenue sources simply are not located where an equal distribution can be made throughout a state under existing tax structures in many states. However, it can be said that a school district should be large enough to have a tax base capable of supporting an educational program which meets the needs of youth residing in the district.

While state programs of financial support often attempt to provide some equalization of the state monies available for elementary and secondary education, it is well to remember that such programs equalize only to a minimum level, not to an optimum or maximum level.

State programs of school district organization should and do give attention to the reduction of the existing inequities in order to meet the objective of equalizing the financial support burden over a state.

Objective Three

Objective Three: The educational structure of the state shall be organized to provide students with well-trained classroom teachers. The literature seems to support the generalization that good-sized schools and school districts generally have staff members with higher levels of professional preparation than do smaller schools and school districts. As illustrations from the literature on this point, information from three states plus a statement from a U.S. Office of Education research summary, are presented below.

A 1966 study of Georgia's school systems reported higher professional training levels for teachers, principals, guidance and library personnel in the state's secondary schools when high schools reached at least the 500 pupil level. This study also reported that the best prepared teachers were found in high schools with over 1,500 pupils.

A 1963 Oregon study concluded that smaller school districts tend to have more non-degree teachers, and that larger districts have a higher percentage of teachers holding regular teachers' certificates. A 1963 statewide study in Ohio indicated that as size of high schools increased, so did the percentage of teachers holding Masters degrees.

An Office of Education summary of research, related to this aspect of the size question, conducted between 1956–1963, stated: "A number of studies found that in larger schools there were more experienced teachers, more teachers with graduate training, larger percentages of teachers teaching in major fields, and less staff turnover."

Size alone is probably not the sole determinant in larger schools and school districts having more highly trained personnel. Factors such as broader programs, greater local wealth, and school system personnel policies which attract better trained teachers undoubtedly also contribute to this differential.

Objective Four

Objective Four: The educational structure of the state shall be organized to utilize efficiently the specialized and technical school personnel in the state. At a time when professionally trained education personnel are often in short supply, it seems imperative that a state wisely use the personnel available.

School districts are often faced with acute personnel shortages in one or more parts of the school program. States are often short of the number of teachers needed as schools reopen each fall. At the same time, however, low pupil-teacher ratios may exist in many schools and districts—in the very states in which shortages are being claimed. This situation gives some credence to the view that available personnel are not being utilized efficiently.

Two aspects of staff utilization emerge from the literature. First, the pupil-teacher ratio factor often reveals excessively low numbers of pupils per teacher in small districts. Second, the specialization training of teachers is often wasted, or poorly used, in small school districts. Illustrations of both of these are presented in the following paragraphs and in Table 11 in the Appendix.

A 1961 statewide study of education in New Hampshire concluded that through proper reorganization—placing greater numbers of high school students in larger schools—the actual number of high school teachers in the state's public school system could be reduced. A similar conclusion was reached in regard to elementary teachers. In this instance a state survey group appeared to be suggesting that a surplus of teachers was actually employed to compensate for an ineffective school district structure.

Other studies of this aspect of teacher utilization have pointed to excessively low pupil-teacher ratios in small schools and districts. Jackson's regional level study of all the secondary schools in eleven states indicated that only as high schools reached the 500–999 size category did pupil teacher ratios rise to a 25–1 ratio.

Barr, in an Indiana study of pupil-teacher ratios by size of school districts, wrote, "The most efficient pupil-teacher ratio was found in systems which enrolled 2,000 or more pupils in grades 1–12. Of 133 school districts in this Indiana study, only 25 reached median pupil teacher ratios of 30 to 1.".

The preceding remarks should not be interpreted as encouraging large classes. Instead, they are meant to indicate that it may be possible for a state school system to make better use of the teaching staff already employed through an effective district structure.

Another aspect of utilization is assignment of teachers to major fields of preparation. Jackson's regional study of all high schools in eleven states indicated that the percentage of pupils taught by non-certified teachers decreased as schools became larger. The largest percentage of pupils taught by those teaching outside of certificated fields was found in small high schools. Teachers working in the area of their certification in all fields increased as the size of the high school increased.

The 1966 *Illinois Study of Education* stated: Another restriction on the utilization of staff is the small size of many schools and districts. This is particularly true where the district has only one high school. Teachers perform best in one area, or at most two areas, of special knowledge and skill. A school which has only one class in physics and one in chemistry seldom can attract and hold a specialist in these fields, when the major part of his time will be spent teaching in fields in which he has less competence and interest.

On a nationwide basis, the *1962 Census of Governments* reported the number of full-time equivalent instructional personnel per 1,000 students by size of school system in the country. The U.S. average was reported to be 43.7 such personnel per thousand enrolled pupils. In an examination of this ratio by size of school systems a consistent inverse ratio was noted.

The smaller the system the greater the number of instructional personnel per thousand enrolled pupils. Ratios by selected size categories are summarized in Table II.

While the number of instructional staff per thousand enrolled pupils in the 3,000 or more size category may not reach desirable levels indicated by knowledgeable people in the field of school personnel administration, neither is it realistic to assume that small districts are so organized as to effectively use the rather generous ratios identified.

Objective Five

Objective Five: The educational structure of the state shall be organized in such a way that best use of monies expended for education may be realized. Cost per pupil is an oft-used yardstick of educational finance measurement. Comparisons of this factor among the school districts of a state often reveal wide differences. Such comparisons may also be quite meaningless unless it is determined what such costs actually "buy," in terms of an educational program. It would be possible for district X to have a reported per pupil cost of $550. District Y could have a reported cost of $800 per pupil. Yet the $550 figure may represent a much superior educational program.

The literature consensus is that small school districts and small schools are, when compared to their larger counterparts, more costly to operate when using costs per pupil as a criterion. This then suggests that monies being spent for education in a state may not be spent in a manner in which the greatest educational return may be received.

An inverse ratio is often indicated in this area: as size goes up, the cost per pupil goes down. This appears to be the case up to a point which is not well-defined for all districts, however.

Statewide analyses of costs per pupil in various sizes of school districts often point out the comparatively costly programs of small school districts. Examples from two states appear in Tables III and IV in the Appendix.

Summary—Objectives and Size. Size suggestions are related to objectives. Unless certain sizes can be reached, program objectives may not be met. The importance of the size factor is not in the numbers themselves, *but in what the greater numbers can produce.*

SIZE AND PARTS OF THE STRUCTURE

States have determined how their respective school systems shall be organized. There are three organizational patterns over the country. First is the three level structure composed of the basic school district, the intermediate agency, and the state education agency. Second is the two level structure which omits the intermediate agency. Third is a single level system in which the state education agency operates the schools. The size factor relates primarily to the first two patterns, plus the individual elementary and secondary schools which are parts of a school district.

Structure, like size, is *not* important *in and of itself*. It *is* important when related to the tasks that structure can accomplish to meet educational objectives in a state.

In the following paragraphs, size and the various parts of the structure are discussed. Tables are included in the Appendix, where appropriate, to indicate size suggestions and recommendations of professional organizations or persons.

SIZE AND THE ELEMENTARY SCHOOL

The consensus of the literature seems to suggest a minimum size elementary school be at least large enough to have one teacher per grade level. Recommended as better would two or three classrooms for each grade level. A maximum seems to be 4 classrooms per grade level. Table V in the Appendix presents recommendations from various professional groups and individuals on the matter of elementary school size.

SIZE AND THE SECONDARY SCHOOL

The preponderance of the literature on size is focused on the American high school. This focus has been perceptibly sharpened since the Conant study in the late 1950's.

The question of size at the high school level is more complex than it may first appear. Size must be related to other units of school organization if it is to be meaningful. For example, to indicate that a high school should have a minimum enrollment of 500 students is irrelevant unless it is reasonably well understood what program can be offered in a high school of this size. Of all the recent high school size recommendations, the figure of 500 students appears most often. However, much of the literature indicates that only some educational objectives may be normally met with 500 students. Vocational educational needs would probably scarcely be touched with such a student enrollment if the 500 student high school was expected to provide all of the high school program. However, if a vocational high school program was available nearby, operated under the same or a different administrative structure, then the 500 pupil high school might be satisfactory.

The point is simply this: before high school size can satisfactorily be established, it should be known how the needs of all students are to be met. A figure of 500 students might be satisfactory under some structural arrangements and inadequate in other cases.

The information in Table VI in the Appendix illustrates high school size recommendations made in recent years.

SIZE AND THE ADMINISTRATIVE UNIT

(The Basic School District)

In state programs of school district organization it is this unit of the structure which feels the brunt of the movement. The consolidation of the individual schools typically follows the realignment of the school district lines.

The number of pupils required for a complete educational program is the question of size in this case. The word "program" implies different meanings and is again related to the total state educational structure. If program includes primarily what goes on in the classroom plus the general administration, this implies one size figure. If, on the other hand, program includes all the ancillary services to support the classroom and its administration, then the size factor changes considerably. Perhaps it is here that a most vital point in regard to state programs of school district organization can be made:

The individual parts of a state school system structure are inextricably related. A balance exists based upon programs offered at each level and the statutory responsibilities which each part must assume. To change any part without giving careful consideration to the others may cause serious problems throughout an entire state.

Recommendations of contemporary literature on school district size range from 2,000 students to 50,000 students. Occasionally, a recommendation may go beyond this. One often observes large differences among size recommendations. It may well be that this is due to vastly different assumptions about what the basic school district should attempt to accomplish. One should carefully examine and understand such assumptions before making generalized comparisons of the size factor.

States which have undertaken programs of district organization in recent years have typically set minimum sizes. This has been done in two ways: the statutes may enumerate the minimum size; or statewide standards, developed through the state education agency, may set the minimum size.

The information presented in Table VII in the Appendix illustrates a number of district size recommendations made by organizations and individuals.

SIZE AND INTERMEDIATE AGENCIES

In the period 1962–67, seven states adopted new structures at the intermediate level of school government. Size was a factor considered in each case. Five of the seven states included minimum sizes in either the statutes creating the new structures or in standards to be observed: minimum size ranged from 5,000 to 50,000 students.

Four additional states have developed proposals for changed intermediate structures. Size has been seriously deliberated in each case. One such state has tentatively developed a 100,000 pupil size base. Another has suggested 125,000 pupils.

The factor of size, related to the intermediate agency part of state school system structure, again appears to be objective-oriented. The objective is the provision of program-supporting and supplemental services to all children, not just those who happen to live in economically affluent or reasonably heavily populated areas.

In Table VIII in the Appendix the states which have recently changed or added new intermediate structures are listed. Sizes are included where appropriate.

In Table IX in the Appendix the four states considering intermediate structural changes are listed. Recommended sizes are included where these are known.

Some services demand a greater pupil base than others. It obviously requires a greater number of pupils to adequately support an economically feasible data processing service center than it does to provide a speech and hearing therapy program operating from an intermediate agency.

SIZE AND VOCATIONAL EDUCATION

If educational needs are to be met within a state, attention must be given to programs of vocational education at the secondary level. As pointed out earlier, small high school enrollments probably can not sustain a vocational education program of satisfactory breadth of offerings. Many school districts are too small to offer such programs.

The literature does not contain numerous specific size recommendations on this aspect of the program. However, it is the experience of those individuals who have worked in the area of vocational education that a satisfactory program does require a rather large pupil enrollment as well as adequate financial resources. Illustrations of this, from personnel in the Rockland County, New York, BOCES Unit and the Division of Vocational Education in the Ohio Department of Education are of some help here. The former have indicated a need for a total enrollment of 75,000 pupils from which to draw potential vocational education students for a broad program. In Ohio, the Division of Vocational Education has stated that approximately 42,000 pupils are needed as a base from which to secure sufficient students to offer and maintain a 12-unit vocational education program.

Only the largest school districts have such numbers of pupils. These exist in reasonably heavily populated areas. Yet a student in sparsely populated areas may also have a need for a vocational education program, and can benefit both himself and his society by participating in it.

In many parts of the country, it is geographically impossible to arrange school district lines to include such pupil numbers. It would probably even be undesirable to do so. Therefore, alternatives must be considered. A number of states are facing up to the problem by forming vocational school districts or area schools or districts where vocational education programs can be made available to high school students. This is a very important part of the total school district organization problem and must receive the careful attention of those who plan a statewide program.

It is the point of view of this writer that a state should not fall into the trap of having to decide on a single type of district for vocational educational programs. Multiple approaches, dependent upon such factors as population and fiscal resources, appear to present a more realistic answer to the problem.

SIZE AND SPECIALIZED SERVICES

An increasingly important aspect of the size question, and one which relates to utilization of available personnel, revolves around the following type of question: How many students are required for a service to be offered efficiently and effectively?

Clear-cut answers do not appear to be available. This is undoubtedly because situations in which similar services are offered vary so much. For example, a speech therapist serving a small, densely populated area would be in a far different situation than would her counterpart serving an entire county in a sparsely settled area.

However, there are some helpful guidelines. These should not be accepted as absolutes, however. The figures presented in Table X in the Appendix . . . recommendations from the 1958 Yearbook of the American Association of School Administrators plus those from position papers developed for a 1966 school district organization study in Ohio.

Other programs or services where size is important are included in Table XI in the Appendix. This information is again subject to the limitation of being from one state study, Ohio, in 1966.

There are two remaining pieces in the size picture not previously mentioned. These are student participation in extra-class activities related to high school size and pupil achievement. In the former, the literature is not in any general agreement about whether students participate in extra-class activities to any greater or lesser extent in large or small high schools. There is an agreement that larger high schools do have a larger number of extra-class activities from which students may choose, however.

In the second item, pupil achievement, the literature strongly suggests that pupil academic achievement, as measured by scores on standardized achievement tests, is higher in larger schools, both elementary and high school.

SUMMARY

Much of the information presented is not in the form of what many readers would judge to be sound research on the matter of size. However, it might also be said that a paucity of pure research exists on many aspects of the size question.

In defense of much of the information, it may be said that it does represent, in addition to some research, the soundest professional opinion and counsel that many individuals can express on the basis of their analysis of one or more aspects of size.

Knowledgeable individuals are often somewhat hesitant to express absolute numbers when asked the question beginning with the words, "What size?" This is understandable because of many related factors. Perhaps the most appropriate way for a state to answer the size question is to answer first these questions: (1) What do we want the state school system to accomplish? (2) What are the structural alternatives that will be best for our states?

Once these have been answered, size then becomes a factor in determining the success of programs within the structure.

APPENDIX

TABLE I

Illinois High Schools – Breadth of Educational Program

Curricular area	Average number of course credits		
	Under 200 pupils	400–700 pupils	Over 1,250 pupils
Language Arts	1.3	1.8	6.9
Social Studies	3.0	4.1.	5.7
Foreign Languages	1.9	4.4	13.0
Science	3.5	4.3	5.6
Mathematics	4.3	4.7	6.5
Business Education	4.7	6.9	8.4
Homemaking	3.5	3.3	3.8
Agriculture	2.4	4.6	0.5
Industrial Arts	2.5	5.3	9.4
Vocational T & I	0.0	0.3	8.8
Fine Arts–Music	1.0	2.8	6.4
Fine Arts–Art	0.0	1.3	2.7
Health–P. E.	1.2	1.3	1.2

Source: William P. McLure, *Education for the Future of Illinois* (Springfield: School Problems Commission, 1966), p. 33.

TABLE II

Number of Instructional Personnel Per 1,000 Enrolled Students

Size of school system	Instructional Personnel
3,000 or more pupils enrolled	42.7 per thousand
1,200–2,999	44.0
600–1,199	45.8
300– 599	47.5
150– 299	50.3
50– 149	53.0
Less than 50	78.1

Source: U. S. Bureau of the Census, *Census of Governments*, 1962: Compendium of Public Employment, Vol. III, p. 499.

TABLE III

Colorado Per Pupil Costs (ADA)
Current Operating Expenses, 1965-1966

District size	Range	Median
1– 99	$805.–$1,646.	$989.
300– 399	$373.–$ 795.	$627.
600– 699	$447.–$ 699.	$578.
900– 999	$547.–$ 792.	$599.
1,000– 3,999	$362.–$ 677.	$515.
4,000– 6,999	$433.–$ 650.	$474.
7,000– 9,999	$425.–$ 543.	$481.
10,000–25,000	$434.–$ 606.	$480.

Source: Byron Hansford, *Comparative Information, 1965–66* (Denver: Colorado Department of Education, 1967), p. 3.

TABLE IV
Iowa Per Pupil Costs by High School Size, 1965-66

Size of high school	1965–66 School year costs per pupil
50– 79	$610.
200–299	$524.
500–599	$457.
700–799	$451.
1,000 and over	$476.
State Average	$493.

Source: Ellis Hanson, *Planning for School District Organization in Iowa* (Des Moines: Department of Public Instruction, July, 1967), p. 37

TABLE V
Elementary School Size Factor
(Attendance Unit Only)

Individual/organization	Minimum	Optimum	Maximum
White House Conference on Education (1956)	225–250	300 & 12 teachers	
National Education Association Dept. Of Elementary School Principals (1954)	–	–	500
National Commission on School District Reorganization (1948)	175 & 7 teachers	300 & 12 teachers	
New York Council for Administrative Leadership (1961)	500–600	–	900
Ohio Department of Elementary School Principals (1966)	300	500	750
Miami, Ohio, School of Education, Guidelines for School District Organization in Ohio	6 rooms 1 teacher per grade plus K room	12–18 rooms	–
State Departments of Education[1]	States which have formulated size statements appear to agree generally on minimum size of one teacher for each grade, optimum of approximately 2–3 sections per grade, and 4 sections per grade as a recommended maximum.		
Howard Dawson, Executive Secretary Emeritus National Education Assn. Dept. of Rural Education	240–280		
William Rosenstengel	1–6 175 1–8 250	525 550	750 825
M. L. Cushman	175 & 7 teachers	–	–
Ralph Sollars Unpublished Dissertation, Ohio State University (1963)	–	300–499	–
C. C. Carpenter	1–6 175 K–6 225	–	–
David Basher Unpublished Dissertation, University of Iowa (1961)	–	Two sections per grade	–
Clement W. Wood Unpublished Dissertation, University of Colorado (1951)	1–6 175 K–6 225–250	1–6 525 1–8 550	– –

[1] Includes California, Illinois, Iowa, Minnesota, Pennsylvania, Wisconsin, West Virginia, Colorado, Connecticut, Florida, Georgia, Mississippi, Missouri, New Hampshire, New York, Washington.

TABLE VI
High School Size Factor (Attendance Unit Only)

Individual/organization	Minimum	Optimum	Maximum
White House Conference on Education (1956)	–	700–1,000	–
National Commission on School District Reorganization (1948)	300–450	–	–
State Board of Education Study In Vermont (1961)	Range of 600–2,000		2,000
Interim Commission Study in New Hampshire (1961)	–	500 & 25 teachers	–
Organization of School Systems in Georgia (study by George Peabody College) (1965)	100 in graduating class	800–1,200	–
Lloyd Andrews Unpublished Dissertation, Stanford University (1958)	–	1,200–1,600	–
Clifford Smith Unpublished Disser-Superintendent of Chicago Schools	–	2,000	–
Clifford Smith Unpublished Dissertation, Ohio State University (1960)	–	800–1,200	–
Calvin Grieder and William Rosenstengel (1954)	7–9 300 10–12 350 7–12 350	700 950 775	1,100 1,525 1,150
James Conant (1959)	100 in graduating class		
State Departments of Education[1]	States which have formulated size statements appear to agree generally on either a 500 pupil or a 100 pupil graduating class as a minimum size.		
San Mateo County, California, Curriculum Study	1,000	1,500–2,000	2,000
Ohio Association of Secondary School Principals (1966)	–	1,300–1,500	–
Benjamin Willis, former General Superintendent of Chicago Schools	–	2,000	–
Korwitz and Sayres Study in New York	500	600–800	–
William McLure, University of Illinois	700	1,000–1,200	–

[1] Includes New Jersey, New Hampshire, New York, Vermont, Washington, and Wisconsin.

TABLE VII

School District Size Factor
(The Administrative Unit)

Individual/organization	Minimum	Optimum	Maximum
National Commission on School District Reorganization (1948)	10,000	–	–
Harvard Dawson, National Education Association; Department of Rural Education (1948)	1,600	9,800-12,000	–
Harlan Beem, Midwest Educational Research Center	–	11,000	–
Edgar L. Morphet, University of California	1,200	10,000	–
Ronald Campbell, University of Chicago	2,000	–	–
R. M. Eyman, for Ohio County Superintendents' Assn.	2,500	10,000	–
Institute of Administrative Research, Teachers' College Columbia University (1961)	–	20,000-50,000	–
William P. McLure, University of Illinois	5,000–6,000	–	–
Committee for Economic Development (1960)	–	–	25,000
Organization of School Systems in Georgia (study by George Peabody College) (1965)	10,000	15,000–20,000	–
Ohio Master Plan (1966)	3,500	20,000–35,000	–
State Board of Education Study in Vermont	Range of 2,000 to 6,000		
Stephen Knezevich, American Association of School Administrators	–	10,000–12,000	–
St. Louis County, Missouri Study (1962)	2,000		
Connecticut Department of Education	5,000 for regionalized school districts		

TABLE VIII

Intermediate Unit Size

State	Year	Minimum size
Colorado	1965	No number required
Iowa	1965	No number required
Michigan	1962	5,000 students
Nebraska	1965	10,000 students used as a guideline
Texas	1965	50,000 students, subject to a sparsity factor
Washington	1965	20,000 students
Wisconsin	1965	25,000 students

TABLE IX
Other Intermediate Unit Size Considerations

State	Minimum size recommendation being considered
California	–
Ohio	35,000 students
Oregon	–
Pennsylvania	100,000 students

TABLE X
Size and Special Services

Service area	Ratio professional personnel to students
AASA	
Art Consultant	1– 2,500 to 3,000
Child Accounting	1–10,000
Educational Materials Consultant	1– 5,000 to 12,000
Guidance Counselor	
High School	1– 300 to 400
Elementary	1– 600
Health Services	1– 2,500
Homebound Youth	1– 1,250
Language Arts Consultant	1–10,000 to 12,000
Music Consultant	1– 2,500 5,000
Partially Sighted	1– 500
Physical Education Consultant	1– 2,500 to 5,000
Physically Handicapped	1– 250
Psychologists	1– 2,500
Speech and Hearing Therapy	1– 2,000 to 2,500
Visiting Teacher	1– 2,000 to 3,000
OHIO STUDY	
Art	1– 500
Guidance—High School	1– 250 optimum 1– 400 maximum
Elementary	1– 450 optimum
Health Services	1– 2,500
Librarian	One in Every School
Instrumental Music	1– 500
Neurological and/or Emotionally Disturbed	1– 3 to 8 (teacher-pupil ratio)
Physical Education	1– 500
Psychologists	1– 2,500
Speech and Hearing Therapists	1– 3,000

TABLE XI
Size and Other Programs

Program	Minimum	Optimum	Maximum
Adult Education Comprehensive adult education program (25,000 total population)	6,520		
Adult Basic Education Program (7,500 total population)	1,956		
Chartered Evening High School (75,000 total population)	19,560		
Ful Time Director (75,000 total population)	19,560		
Education Counselors for the Adult Education Program	19,560		
Business Administration	35,000	100,000 plus	
Data Processing	60,000	100,000 plus	
Pupil Transportation	35,000 and/or based on socio-economic area		
Curriculum Development	35,000 and/or based on socio-economic area		

CHAPTER 10

A STUDY OF ADMINISTRATIVE COSTS IN SELECTED SCHOOL DISTRICTS OF IOWA, MISSOURI, AND SOUTH DAKOTA

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Part One

INTRODUCTION

One of the economies expected from large-enrollment public school districts is that of reduced administrative cost. When per pupil costs are considered, it is assumed that administrative expense, especially that of central office services, will decline with increased enrollment. Determining exactly how much administrative cost economy to expect from larger districts had been difficult in the past because of reporting procedures to the state education agency, variations in accounting systems among states, classification procedures (*e.g.*, building principals' salaries lumped together in "General Administration"), and an understandable reluctance on the part of some superintendents to be compared, on a per capita cost basis, with those of other systems.

The purpose of this study was to determine whether there were significant differences in per pupil costs of central office administration of districts in South Dakota, Nebraska,[1] Iowa and Missouri. This investigation of costs was contracted research for the Great Plains School District Organization Project, Dr. Ralph Purdy, Director.

THE PROBLEM

The general problem of the investigation was the determination and analysis of costs for the *central* administration of public school districts in South Dakota, Iowa, and Missouri for the school year 1965–1966. More specifically the problem was to answer the following questions:

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[1] It was necessary to eliminate all data from Nebraska, since the reporting system used in that state did not provide compatible information with that received from the other three states. However, it should be noted that comparable data is being provided for the 1967–68 fiscal year.

1. What were the costs of school district central administration excluding costs of administering attendance units?
2. What are the component costs of district central administration?
3. How do these costs vary per capita (per pupil) among districts and between states?
4. What is the relationship of district *central* administrative services offered to district size?
5. Insofar as can be determined, does efficiency (*i.e.*, reduction of per pupil costs) continue to increase as district enrollments mount, or is there an "administrative over-burden" present in very large districts which diminishes administrative economy?
6. Is a broad range of administrative services generally available to all districts or are special services, educational supervisors, and administrative specialists found only in larger districts—in high-cost districts?

DELIMITATIONS

This study was delimited to include only approved, public-school districts maintaining grades K–12 during the 1965–66 school year in the states of South Dakota, Iowa, and Missouri. The study dealt only with district *central* administrative costs; excluded were costs for principals, counselors, and secretaries of attendance units. The assumption was made that attendance unit administration (of a single elementary or high school building) would be necessary and relatively constant no matter what district sizes were produced by reorganization.

Furthermore, administrative costs were defined as salaries, fringe benefits, and personal expenses; costs for office equipment and supplies, and fixed costs were excluded. Official archival reports to the state education agency (SEA) were assumed to be accurate; however where data were missing on Secretaries' Annual Reports, local superintendents were contacted by telephone or by mail questionnaire to assure complete cost figures.

Cost figures were most readily available in Iowa because of the detail provided by report documents to the SEA and the use of electronic data processing. South Dakota and Missouri state education did not demand quite the detail found in the Iowa Secretary's Annual Report, nor were all data in machine-useable form in these states. Therefore, the operational decision was made to include for detailed analysis only the ten largest districts, ten smallest districts and the ten districts clustered around each state's median enrollment size.

METHODS AND PROCEDURES

Using the definitions presented in the following section, district *central* administrative positions were classified into: general administration, administrative secretaries, special service personnel, special service secretaries, educational supervisors, educational supervisor secretaries, Board of Education and secretaries and Business Management. During the fall of 1967 conferences were held with Dr. Ralph Purdy, project director and the project state directors: Dr. Ellis Hanson (Iowa), Arthur Summers (Missouri), and Earl G. Boxa (South Dakota). At that time operational definitions were checked for accuracy in each state, cost-reporting procedures for each state compared, and a uniform data sheet was developed as a source document (See Appendix). Numbers of administrators and non-professional personnel were needed for each district as well as expenditures by class and the full-time district enrollment, grades kindergarten through twelve.

Initially, a total survey of all districts was intended. This would have included: Iowa, 455 districts; Missouri, 247 districts; and South Dakota, 215 districts. Unfortunately, a spot check of records in the SEA's of Missouri and South Dakota revealed that only total costs were available and considerable variation existed in the positions defined as "administration." Iowa records were complete except that secretarial costs were not available as a subtotal. Consequently, the decision was made to work with only thirty districts in each state (ten largest, ten median, and ten smallest). All Iowa districts were to be included in a subsequent study.

Using the data sheets, Iowa costs were obtained from a complete print-out of the 1966 Secretary's Annual Report to the Iowa Department of Public Instruction. Numbers, types, and costs of secretaries for Iowa districts were obtained by surveying district superintendents by mail. In the remaining two states a hand-search of financial reports and/or telephone and mail requests to the district superintendents were used.

Data sheets were transferred to cards by keypunch and unit-record equipment and desk calculators were used to produce summary data and per-pupil costs. Analysis of variance techniques indicated that the markedly different costs by size of district were statistically significant.

Finally, rosters of personnel by district were compiled to determine how the types of personnel were distributed by district size. Tables were constructed by state and enrollment classes.

DEFINITIONS

The following definitions are taken from:
E. B. Sessions. *A Study of Administrative Costs in Ohio School Districts.* The State Department of Education: Columbus, Ohio. November 3, 1966.

> *Basic school administrative district* is used to denote school district in which a single board or officer has the immediate responsibility for the direct administration of all the public schools located therein. Its distinguishing feature is that it is a quasi-corporation with a board or a chief school officer that has the responsibility for, and either complete or partial autonomy in, the administration of all public schools within its boundaries. Included in this definition are all so-called "local school districts," "local school systems," "local school administrative districts," as well as all city, village, and "county-

> unit" systems. The terms *basic administrative districts, basic school districts, and basic administrative units* are used synonymously.
>
> An *attendance unit* comprises the geographical area served by a single school. The territory within which children attending an elementary school reside is an elementary school attendance unit. The territory within which children attending a secondary school reside is a secondary school attendance unit. A school attendance unit, as such, does not possess administrative powers independently of the basic school administrative district of which it is a part. It is not a quasi-corporation. A basic school administrative district may consist of one, two, three, or a large number of school attendance units.

It should be noted that this investigation is concerned with personnel and costs of *Administrative Districts* and not with attendance units. As mentioned in the Sessions definition above, the basic school administrative district is a quasi-municipal corporation which has the responsibility for the administration of all public schools—attendance units—within the district boundaries.

Personnel defined as district *central* administrators were:

Administration:

1. Superintendent
2. Assistant Superintendents
3. School Board Clerks
4. Business Managers
5. Secretaries

Educational Supervisors:

1. Elementary
    a. Upper Grades
    b. Lower Grades
    c. Primary
2. Secondary
    a. Art
    b. Home Economics
    c. Industrial Arts
    d. Music
    e. Reading
    f. Physical Education
    g. Vocational
    h. Science
    i. Mathematics

Special Services:

1. Guidance
2. Psychologists
3. Speech Therapists
4. Nurses
5. Visiting Teachers
6. Personnel Directors
7. Audio Visual
8. Dentists
9. Doctors
10. Specialists
11. Special Education
12. Adult Education
13. Pupil Accounting
14. Health Services
15. Deaf and Hard of Hearing
16. Librarians
17. Secretaries

As was expected three positions were found in practically every school district—the superintendent, the board secretary, and an office secretary. In very small districts the board secretary and office secretary positions were filled by the same person. The largest districts had one or more persons in each of the positions on the list.

The above listing of the personnel for the district *central* administration does not include the following:

1. Principals of Attendance Units
2. Assistant Principals of Attendance Units
3. Teachers
4. Custodians
5. Bus Drivers
6. Food Service Personnel
7. Maintenance Personnel
8. Secretaries (Assigned)
9. Counselors of Attendance Units

These are people who deal with attendance units, and it is assumed that no matter what type of *administrative district* is established, the personnel listed immediately above will be required at each attendance unit.

Part Two

FINDINGS

The school districts of Iowa, Missouri, and South Dakota are typically very small. As shown in Table 1 the median enrollments grades K–12 were 714, 693, and 321 respectively. Thus in Iowa, a median-sized district had less than 55 pupils per grade in 1965–1966. South Dakota still has high school graduating classes with fewer than ten members.[2] Examination of Tables 2–4 reveals that, excepting the major city (or cities) of each state, even the classification "ten largest districts" is comprised of a number of schools under 15,000 in size and when Missouri is ignored, most of the schools in the top ten have less than 10,000 students. It should also be noted that the so-called median ten school districts in each state are also very small.

TABLE 1

Public school districts of Iowa, Missouri, and South Dakota maintaining high schools, 1965–1966.

Number and Size	Iowa	Missouri	South Dakota
No. of Districts	455	247	215
Largest Enrollment	44,954	123,733	18,124
Median Enrollment	714	693	321
Smallest Enrollment	195	96	39

---

[2] Dr. Merle Stoneman, for many years before his death professor of Educational Administration at the University of Nebraska, used to tell of giving a commencement address at a western Nebraska school graduating three students. The girl who was salutatorian that year was not admitted to the University because she did not rank in the top half of her graduating class!

Tables 2–4 contain *general* administrative [illegible] *i.e.*, costs for superintendent, assistants, secretaries, business personnel, and board of education. These tables do not contain costs of special services personnel or educational supervisors.

Per Pupil Costs of General Administration

The per pupil costs contained in Tables 2–4 are the very essence of this report and vividly support the original assumption that small school districts have greatly increased per capita expense for central administration. Iowa's ten largest districts spent about $11.00 per child for central

TABLE 2

Per pupil cost for general administration of large, median, and small districts in Iowa, 1965–66.

Rank	District	Enrollment	Cost of Administration	Administrative cost per pupil
1	Des Moines	44,954	$322,932	$ 7.18
2	Cedar Rapids	23,596	228,490	9.68
3	Davenport	21,592	197,742	9.16
4	Waterloo	19,469	168,623	8.66
5	Sioux City	18,324	114,951	6.27
6	Council Bluffs	15,252	80,228	5.26
7	Dubuque	8,861	91,984	10.38
8	Ottumwa	8,199	82,171	10.02
9	Iowa City	7,870	276,148	35.08
10	Fort Dodge	7,812	81,011	10.37
238	Beaman-Conrad	723	16,056	22.20
239	Holstein	722	12,341	17.00
240	Turkey Valley	719	21,419	29.60
241	Montezuma	717	25,944	36.10
242	Eastwood	714	60,891*	85.00
243	Adair-Casey	713	27,659	38.70
244	Buffalo Center	708	16,196	22.75
245	Twin Cedars	708	16,991	23.90
246	H.L.V.	707	19,546	27.65
247	Underwood	705	19,160	27.10
446	Diagonal	261	12,164	46.10
447	Ayrshire	261	12,106	46.20
448	Marathon	243	12,690	51.90
449	Garrison	237	7,727	32.50
450	Palmer	236	8,956	37.90
451	New Providence	235	6,530	27.90
452	Steamboat Rock	231	8,292	35.80
453	A.C.L.	226	19,399	85.40
454	Rake	211	8,891	42.10
455	Rembrandt	195	6,317	32.30

* This district has included retirement payments for the entire staff in the administration total.

administration during the 1965–1966 year.[3] Median-sized Iowa districts in the state spent about $33.00 per child for these services. The smallest ten districts spent around $44.00 per child for central administration. A similar pattern of costs was found in each of the states. Median district costs were double or triple those of the ten largest districts.

To simplify comparisons, the per pupil costs of each classification were averaged and presented for all three states. Data in Table 5 concerning the "smallest-ten" classification indicates that small schools were spending amounts from three to almost ten times that of the large-district mean per

TABLE 3

Per pupil cost for general administration of large, median, and small districts in Missouri, 1965–1966.

Rank	District	Enrollment	Cost of Administration	Administrative cost per pupil
1	St. Louis	123,733	$970,579	$ 7.84
2	Kansas City	79,835	279,845	3.51
3	Springfield	23,805	301,683	12.59
4	Ferguson	16,795	116,546	6.90
5	St. Joseph	16,489	83,800	5.80
6	Raytown	15,790	108,674	6.90
7	Independence	14,955	123,688	8.25
8	Ritenour	14,677	141,680	10.05
9	Hazelwood	14,536	141,465	9.76
10	Hickman Mills	12,682	118,118	9.21
238	Albany	749	16,706	22.17
239	Qulin	710	15,762	22.19
240	Milan	706	13,381	18.95
241	Laddonia	697	11,798	16.86
242	Elsberry	693	16,385	29.14
243	North Platte	680	20,135	29.56
244	Rich Hill	668	15,656	23.36
245	Conway	667	13,182	19.70
246	Rock Port	662	21,122	31.82
247	Canton	650	15,897	24.46
476	Hermitage	142	8,159	57.46
477	Williamstown	139	8,598	61.43
478	Dadeville	133	8,650	60.52
479	Gorin	128	10,881	83.85
480	Wyaconda	119	10,208	85.00
481	Coffey	109	7,145	65.01
482	Wheeling	108	8,898	83.33
483	Ravanna	105	8,833	83.81
484	Martinsville	97	9,760	100.62
485	Ethel	96	9,360	97.50

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[3] Slightly less if Iowa City school district is omitted. This district had recently made considerable improvement in administrative services and staff and had raised the per pupil total to $35.08

pupil expenditures. The differences were least in South Dakota, possibly because the median- and smallest-ten classifications were quite similar in size. Furthermore, the "largest-ten" classification of this state contained seven districts smaller than 5,000. Administration obviously is a part-time assignment in most of the small districts of South Dakota when annual costs as low as $891.31 were reported!

Actual-amount comparisons across state lines can be considered fairly precise in the series of tables 2–5. In some instances sub-totals for secretaries or business managers were not available, but total figures were always available.

Going beyond general administration to costs of educational supervisors and special services personnel proved to be more difficult. In the following

TABLE 4

Per pupil cost for general administration of large, median, and small districts in South Dakota, 1965–1966.

Rank	District	Enrollment	Cost of Administration	Administrative cost per pupil
1	Sioux Falls	18,124	$181,397	$10.17
2	Rapid City	13,369	113,183	8.47
3	Aberdeen	5,967	41,316	6.92
4	Huron	3,980	48,445	12.17
5	Douglas	3,894	86,881	22.31
6	Watertown	3,781	48,335	12.78
7	Mitchell	2,915	47,368	16.25
8	Brookings	2,855	45,280	15.86
9	Pierre	2,763	39,124	14.16
10	Yankton	2,595	46,621	17.97
103	Armour	331	9,081	27.44
104	Bowdle	330	11,132	33.74
105	Herreid	326	4,175	12.81
106	Alexandria	322	11,985	37.22
107	Egan	321	9,997	31.15
108	Hill City	313	7,940	25.37
109	Roscoe	311	7,673	24.67
110	Plankington	309	7,557	24.46
111	Veblen	305	5,223	17.13
112	Tripp	303	6,305	20.81
206	Claremont	111	1,156	10.42
207	Vivian	110	850	7.73
208	Worthing	106	6,890	65.00
209	Glenham	103	1,437	13.95
210	Volin	102	2,507	24.58
211	Oelrichs	93	5,364	57.68
212	Witten	89	3,699	41.56
213	Interior	75	3,332	44.43
214	Bison	72	2,075	28.88
215	Fairview	39	891	22.85

TABLE 5

Average per pupil cost of administration by size classification, Iowa, Missouri, and South Dakota, 1965–1966.

	Iowa	Missouri	South Dakota
Total no. of districts	455	217	215
Mean cost per pupil			
Largest ten	$11.20	$ 8.08	$13.71
Median ten	33.00	23.82	25.18
Smallest ten	43.80	77.85	31.71

TABLE 6

Per pupil costs of all central administration, large, median, and small districts in Iowa, 1965–1966.

Rank	District	Enrollment	General* Adminis-tration**	Special Services	Educational Supervision	Total Adm. Cost	Total per pupil cost
1	Des Moines	44,954	$345,411	$705,365	$421,173	$1,471,949	$32.74
2	Cedar Rapids	23,596	251,482	376,746	243,695	871,923	36.95
3	Davenport	21,592	197,742	–	–	–	–
4	Waterloo	19,469	192,741	148,488	290,638	631,867	32.46
5	Sioux City	18,324	167,771	220,119	164,236	552,126	30.13
6	Council Blucs	15,252	114,398	81,596	146,438	342,432	22.45
7	Dubuque	8,861	130,761	135,981	116,438	383,180	43.21
8	Ottumwa	8,199	93,744	103,497	83,865	281,106	34.29
9	Iowa City	7,870	286,797	0	17,853	304,650	38.71
10	Fort Dodge	7,812	130,730	74,056	163,739	368,525	47.17
223	Beaman-Conrad	723	22,056	15,000	103,850	140,906	194.89
224	Holstein	722	16,540	16,300	15,920	48,760	67.53
225	Turkey Valley	719	30,296	10,583	6,512	47,391	65.91
226	Montezuma	717	31,744	15,000	0	46,744	65.19
227	Eastwood	714	67,600	30,499	6,760	104,859	146.86
228	Adair-Casey	713	34,388	16,500	0	50,888	71.37
229	Buffalo Center	708	20,095	10,275	0	30,370	42.90
230	Twin Cedars	708	19,391	10,950	0	30,341	42.85
231	H.L.V.	707	24,146	0	1,350	25,496	36.06
232	Underwood	705	22,160	13,700	10,100	45,960	65.19
446	Diagonal	261	12,164	0	0	12,164	46.60
447	Ayrshire	261	14,805	2,000	0	16,805	64.39
448	Marathon	243	12,689	0	0	12,689	52.22
449	Garrison	237	9,030	830	1,715	8,955	48.84
450	Palmer	236	8,955	0	0	8,955	37.94
451	New Providence	235	6,530	0	0	6,530	27.79
452	Steamboat Rock	231	11,292	5,800	0	17,092	73.99
453	A.C.L.	226	23,799	0	0	23,799	105.31
454	Rake	211	10,279	0	41,220	51,499	244.07
455	Rembrandt	195	6,317	0	0	6,317	32.40

* General administration includes cost of board of education, superintendent and assistants, business managers, and all administrative secretaries.

** General administration totals will differ from those presented in Table 2 because Table 2 is taken from the Secretary's Annual Report, July, 1966. Table 7 data are from a mail survey of 1966–67 school year costs (fiscal year v. school year costs).

series of tables 6–8, the Iowa figures were most complete; they included a special cost break-out for secretaries by administration, supervision or special services, provided by surveying the business officials of the districts involved. Missouri data were equally comprehensive. South Dakota costs for business manager, special services, educational supervisors and secretaries by area could not be obtained.

Inclusion of all central administration costs had equalizing effect on the distribution of per pupil costs. Large district expenditures for educational supervisors and special services personnel tended to increase unit costs; median and small districts had few expenditures beyond those for

TABLE 7

Per pupil costs of all central administration, large, median, and small districts in Missouri, 1965–1966.

Rank	District	Enrollment	General Administration*	Special Services	Educational Supervision	Total Adm. Cost	Total per pupil cost
1	St. Louis	123,733	$979,575	$1,332,816	$653,320	$2,965,711	$23.97
2	Kansas City	79,835	279,815	662,220	867,983	1,810,018	22.67
3	Springfield	23,805	301,683	164,689	77,508	543,880	22.85
4	Ferguson	16,795	166,546	72,000	83,850	322,396	19.20
5	St. Joseph	16,489	83,800	40,500	43,200	167,500	10.16
6	Raytown	15,790	108,671	13,000	190,600	312,271	19.78
7	Independence	14,955	123,688	52,232	30,715	206,635	13.82
8	Ritenour	14,677	141,680	0	82,861	224,541	15.30
9	Hazelwood	14,536	141,465	45,863	36,628	223,956	15.41
10	Hickman Mills	12,682	118,118	70,547	0	188,665	14.88
238	Albany *	749	16,706	0	0	16,706	22.30
239	Qulin	710	15,762	0	0	15,762	22.20
240	Milan	706	13,281	0	6,725	20,006	28.34
241	Laddonia	697	11,798	0	0	11,798	17.17
242	Elsberry	693	16,385	0	13,376	29,761	42.95
243	North Platte	680	20,135	0	0	20,135	29.61
244	Rich Hill	668	15,656	0	0	15,656	23.44
245	Conway	667	13,182	9,600	10,400	33,182	49.75
246	Rock Port	662	21,122	0	0	21,122	31.91
247	Canton	650	15,897	0	5,005	20,902	32.16
476	Hermitage	142	8,159	0	0	8,159	57.46
477	Williamstown	139	8,598	0	0	8,598	61.86
478	Dadeville	133	8,650	0	0	8,650	65.04
479	Gorin	128	10,881	0	0	10,881	85.01
480	Wyaconda	119	10,208	0	0	10,208	85.78
481	Coffey	109	7,145	0	0	7,145	66.55
482	Wheeling	108	8,898	0	0	8,898	82.39
483	Ravanna	105	8,833	0	0	8,833	84.12
484	Martinsville	97	9,760	0	0	9,760	100.62
485	Ethel	96	9,360	0	0	9,360	97.50

* *Ibid.*

general administration. The largest districts still provided a per pupil economy; for example, the Iowa mean per-pupil cost for central administration in the largest ten districts was $35.35; median districts, $78.88; and in small districts the figure was $73.55.

Also of interest was the leveling of per pupil costs within district-size strata. Consider the cases of Iowa City, Iowa, and Kansas City, Missouri. When only general administrative costs were considered, Iowa City had a per capita figure much above the other large districts, $35.08, compared to a stratum mean of $11.20. On the other hand, total administrative cost per pupil for this city was $38.71 compared to a large district mean of $35.35.

TABLE 8

Per pupil costs of all central administration, large, median, and small districts in South Dakota, 1965–1966.

Rank	District	Enrollment	General Adminis-tration*	Special Services	Educational Supervision	Total Adm. Cost	Total per pupil cost
1	Sioux Falls	18,124	$184,398	Not Available	$155,834	$340,232	$18.77
2	Rapid City	13,369	113,184	"	72,758	185,942	13.91
3	Aberdeen	5,967	41,316	"	17,179	58,495	9.80
4	Huron	3,980	48,445	"	9,577	58,022	14.58
5	Douglas	3,894	86,881	"	6,496	93,377	23.98
6	Watertown	3,781	48,336	"	44,026	92,362	24.43
7	Mitchell	2,915	47,368	"	0	47,368	16.25
8	Brookings	2,855	45,280	"	3,313	48,593	17.02
9	Pierre	2,763	39,124	"	0	39,124	14.16
10	Yankton	2,595	46,621	"	70	46,691	17.99
103	Armour	331	9,081	Not Available	0	9,081	27.44
104	Bowdle	330	11,133	"	0	11,133	33.74
105	Herreid	326	4,175	"	6,628	10,803	33.14
106	Alexandria	322	11,986	"	0	11,986	37.22
107	Egan	321	9,998	"	0	9,998	31.14
108	Hill City	313	7,940	"	0	7,940	25.37
109	Roscoe	311	7,674	"	0	7,674	24.68
110	Plankington	309	7,558	"	0	7,558	24.46
111	Veblen	305	5,224	"	4,867	10,091	53.09
112	Tripy	303	6,306	"	0	6,306	20.81
206	Claremont	111	1,157	Not Available	0	1,157	10.42
207	Vivian	110	850	"	0	850	9.73
208	Worthing	106	6,896	"	0	6,896	65.06
209	Glenham	103	1,437	"	0	1,437	13.95
210	Volin	102	2,508	"	1,100	3,608	35.37
211	Oelrichs	93	5,365	"	0	5,365	57.69
212	Witten	89	3,699	"	0	3,699	41.56
213	Interior	75	3,332	"	0	3,332	44.43
214	Bison	72	2,076	"	0	2,076	28.83
215	Fairview	39	891	"	0	891	22.85

* *Ibid.*

Similarly, the very low Kansas City general administration per-pupil figure of $3.51 made this district's central office operation appear much more economical than the total per pupil cost of $22.67 reported in Table 7. Differences in budgeting procedures accounted for the rather misleading general administrative costs. Iowa City had higher general administration costs than the typical district of that size classification but no special services costs. Kansas City had relatively modest general administration costs but relatively high educational supervisor costs.

Administrative Personnel

As was stated earlier, this investigation is not concerned with the quality of the educational program, but is concerned with the opportunities the

TABLE 9

Administrators, educational supervisors, and special services personnel of large, median, and small districts in Iowa, 1965–1966.

Rank	District	Enrollment	No. Admin.	No. Spec. Ser. Personnel	No. Educ. Super.	Total
1	Des Moines	44,954	2	44.2	23.5	69.7
2	Cedar Rapids	23,596	2	50.0	14.0	66.0
3	Davenport	21,592	1	–	–	–
4	Waterloo	19,469	2	21.5	11.0	34.5
5	Sioux City	18,324	2	25.3	9.5	35.8
6	Council Bluffs	15,252	2	8.6	11.0	21.6
7	Dubuque	8,861	2	10.5	9.0	21.5
8	Ottumwa	8,199	1	14.0	6.0	21.0
9	Iowa City	7,870	2	0	0	2.0
10	Fort Dodge	7,812	2	9.6	19.8	31.4
238	Beaman-Conrad	723	1	2.0	15.0*	18.0
239	Holstein	722	1	2.0	1.0	4.0
240	Turkey Valley	719	1	2.3	0	3.3
241	Montezuma	717	1	2.6	0	3.6
242	Eastwood	714	1	4.0	0	5.0
243	Adair-Casey	713	1	3.3	0	4.3
244	Buffalo Center	708	1	1.6	0	2.6
245	Twin Cedars	708	1	1.5	0	2.5
246	H.L.V.	707	1	0	0	1.0
247	Underwood	705	1	2.0	1.0	4.0
446	Diagonal	261	1	1.0	3.0	5.0
447	Ayrshire	261	1	0.3	0	1.3
448	Marathon	243	1	–	–	–
449	Garrison	237	1	0.5	0	1.5
450	Palmer	236	1	–	–	–
451	New Providence	235	1	0.7	0	1.7
452	Steamboat Rock	231	1	0.8	0	1.8
453	A.C.L.	226	1	0.5	0	1.5
454	Rake	211	1	0	6.0	7.0
455	Rembrandt	195	1	–	–	–

* Obviously classroom teachers—the total staff of the district numbers 421.

pupils have for effective learning in the schools. What central administration is provided? Are educational supervisors employed? What central administration is provided? Are educational supervisors employed? How many special services personnel support the district operation? In short, what is obtained for the per pupil expenditure of ten, thirty, or eighty-one dollars?

Tables 9–11 following contain numbers of administrators, educational supervisors, and special services personnel employed by districts in each of the three size classifications. The pattern was generally the same for each state: Ten large districts—a few administrative employees, many more special services personnel and a slightly smaller number of educational supervisors; Median districts—one or two administrators and an occasional spe-

TABLE 10

Administrators, educational supervisors, and special services personnel of large, median, and small districts in Missouri, 1965–1966.

Rank	District	Enrollment	No. Admin.	No. Spec. Ser. Personnel	No. Educ. Super.	Total
1	St. Louis	123,733	18	58	63	139
2	Kansas City	79,835	6	48	16	70
3	Springfield	23,805	4	22	9	35
4	Ferguson	16,795	5	6	9	20
5	St. Joseph	16,489	4	10	5	19
6	Raytown	15,790	6	15	22	43
7	Independence	14,955	4	6	4	14
8	Ritenour	14,677	6	0	11	17
9	Hazelwood	14,536	25	4	3	32
10	Hickman Mills	12,682	6	13	0	19
238	Albany	749	1	0	0	1
239	Qulin	710	1	3	0	4
240	Milan	706	2	1	0	3
241	Laddonia	697	1	0	0	1
242	Elsberry	693	1	0	0	1
243	North Platte	680	2	0	0	2
244	Rich Hill	668	1	0	0	1
245	Conway	667	3	3	2	8
246	Rock Port	662	1	0	0	1
247	Canton	650	2	1	0	3
476	Hermitage	142	1	0	0	1
477	Williamstown	139	1	0	0	1
478	Dadeville	133	1	0	0	1
479	Gorin	128	1	0	0	1
480	Wyaconda	119	1	0	0	1
481	Coffey	109	1	0	0	1
482	Wheeling	108	1	0	0	1
483	Ravanna	105	1	0	0	1
484	Marinsville	97	1	0	0	1
485	Ethel	96	1	0	0	1

cial services person or educational supervisor; Ten smallest districts—one administrator, the superintendent, who frequently was teaching part-time, and no special services person or educational supervisors.

Obviously pupils enrolled in large districts had access to more varied and complete administrative services. Those who are familiar with the operations of small districts will point out that superintendents of small schools serve part of the time as educational supervisors and work on special services tasks. Furthermore, county and intermediate unit services can be said to supplement the central administration of small districts. Yet those who are acquainted with the administration set-up of the large districts in this study are also quick to point out that superintendents of Des Moines or St. Louis also spend many hours of each work week as special

TABLE 11

Administrators, educational supervisors, and special services personnel of large, median, and small districts in South Dakota, 1965–1966.

Rank	District	Enrollment	No. Admin.	No. Spec. Ser. Personnel	No. Educ. Super.	Total
1	Sioux Falls	18,144	1	None reported	16	17
2	Rapid City	13,369	1	"	7	8
3	Aberdeen	5,967	1	"	1	2
4	Huron	3,980	1	"	1	2
5	Douglas	3,984	1	"	1	2
6	Watertown	3,781	1	"	5.2	6.2
7	Mitchell	2,915	1	"	4	5
8	Brookings	2,[illegible]55	1	"	2	3
9	Pierre	2,763	1	"	0	1
10	Yankton	2,595	1	"	0	1
103	Armour	331	.8	None reported	0	.8
104	Bowdle	330	1	"	.4	1.4
105	Herreid	326	.7	"	0	.7
106	Alexandria	322	1	"	0	1
107	Egan	321	1	"	0	1
108	Hill City	313	.7	"	0	.7
109	Roscoe	311	.6	"	0	.6
110	Plankington	305	1	"	0	1
111	Veblen	305	.7	"	0	.7
112	Tripp	303	1	"	0	1
206	Claremont	111	.5	None reported	0	.5
207	Vivian	110	1	"	0	1
208	Worthing	106	1	"	0	1
209	Glenham	103	1	"	0	1
210	Volin	102	.33	"	0	.33
211	Oelrichs	93	.33	"	0	.33
212	Witten	89	.5	"	0	.5
213	Interior	75	.5	"	0	.5
214	Bison	72	1	"	0	1
215	Fairview	39	.8	"	0	.8

services workers or as educational supervisors (if the same flexible definitions are used). Moreover, in Polk County, Iowa, services from the county educational unit are available to Des Moines schools; St. Louis County services are given to St. Louis schools quite as readily as to a small school district in that county.

Parenthetically it should be mentioned that the position title of assistant superintendent or associate superintendent is used only sparingly by the large school districts studied. Many districts as large as Cedar Rapids and Davenport, Iowa, or Independence, Missouri, had only one assistant superintendent. Many who were thought to actually serve as assistant superintendents were called "directors," "supervisors," or "consultants." Whether for economy of salaries attached, or because of out-dated organizational charts, large districts seldom had more than one person designated as assistant superintendent. Since median-sized districts often used the term assistant superintendent for the only *central* administration helper for the superintendent, this position showed up as frequently in districts with 700 to 1,000 students as in those districts with 10,000 or more!

Numbers of secretaries for administration, special services, and educational supervisors followed the now familiar pattern of larger numbers in all three categories in the largest ten schools, and almost none in the classifications of special services or educational supervisors when median- or smallest-ten strata were considered (Tables 12–13). No secretarial data were available for South Dakota.

Per pupil costs of special services and educational supervisors are shown in Tables 14–16. Because these services were seldom provided in smaller districts the cost pattern is reversed. Small districts, having few or no supervisors and special services personnel, had no costs. Large districts generally had per pupil costs for supervision and special services which amounted to fifty or seventy-five percent of the total administrative expenditure per pupil. In the few instances when median-sized districts had supervisors and special services personnel, the district's per pupil costs were higher than those of schools in the top ten classification.

Per Pupil Costs for Secretaries

The computerized system of reporting used in Iowa and a special mail questionnaire to the superintendents of districts involved afforded a careful look at the per pupil costs of central administration secretarial services. As was true of certified and professional employees, the highest per pupil costs were associated with general administration (Table 17), special services costs were second (Table 18), and per pupil costs for educational supervisors' secretaries were least (Table 19).

Although not too meaningful because of the numbers of schools reporting "no expenditures" for the various secretarial classifications, the mean per pupil expenditures by size classification are reported in the following openfaced table.

Average per pupil costs for general administration, educational supervisors' and special services' secretaries in Iowa, 1965–1966.

District Classification	General Admin.	Education Supervisors	Special Services
	Secretarial Mean per pupil costs		
Largest Ten	$ 2.39	$ .81	$1.75
Median Ten	7.31	5.54	3.01
Smallest Ten	10.89	.00	.00

Board of Education Costs

Iowa's accounting and reporting procedures provided an opportunity to examine per pupil costs for operations of the board of education and for board secretaries. Once again larger districts had generally lower per pupil costs, although the distribution varied much more than those of other central administration expenditures.

TABLE 12

Secretaries serving administrators, educational supervisors, and special service personnel of large, median, and small districts in Iowa, 1965–1966.

Rank	District	Enrollment	Number of Secretaries			
			Admin.	Spec. Ser.	Ed. Super.	Total
1	Des Moines	44,954	6	70	10	86
2	Cedar Rapids	23,596	5	3	9	17
3	Davenport	21,592	–	–	–	–
4	Waterloo	19,469	5	4	6	15
5	Sioux City	18,324	12	2	5	19
6	Council Bluffs	15,252	9	1	2	12
7	Dubuque	8,861	9	11	2	22
8	Ottumwa	8,199	2	2	1	5
9	Iowa City	7,870	2	0	2	4
10	Fort Dodge	7,812	15	3	1	19
238	Beaman-Conrad	723	2	1	0	3
239	Holstein	722	1	1	2	4
240	Turkey Valley	719	3	0	0	3
241	Montezuma	717	1	0	0	1
242	Eastwood	714	2	1	0	3
243	Adair-Casey	713	4	0	0	4
244	Buffalo Center	708	1	0	0	1
245	Twin Cedars	708	1	0	0	1
246	H.L.V.	707	1	0	0	1
247	Underwood	705	1	0	0	1
446	Diagonal	261	1	0	0	1
447	Ayrshire	261	1	0	0	1
448	Marathon	243	–	–	–	–
449	Garrison	237	.5	–	–	.5
450	Palmer	236	–	–	–	–
451	New Providence	235	0	0	0	0
452	Steamboat Rock	231	1	0	0	1
453	A.C.L.	226	1	0	0	1
454	Rake	211	1	0	0	1
455	Rembrandt	195	–	–	–	–

TABLE 13

Secretaries serving administrators, educational supervisors, and special service personnel of large, median, and small districts in Missouri, 1965–1966.

			Number of Secretaries			
Rank	District	Enrollment	Admin.	Spec. Ser.	Ed. Super.	Total
1	St. Louis	123,733	22	68	16.5	106.5
2	Kansas City	79,835	8	60.5	20	88.5
3	Springfield	23,805	4	13	3	20
4	Ferguson	16,795	14	1	1	16
5	St. Joseph	16,489	10	0	0	10
6	Raytown	15,790	4	2	2	8
7	Independence	14,955	5	2	0	7
8	Ritenour	14,677	9	0	0	9
9	Hazelwood	14,536	28	5	2	35
10	Hickman Mills	12,682	7	0	0	7
238	Albany	749	2	0	0	2
239	Qulin	710	1	0	0	1
240	Milan	706	1	0	0	1
241	Laddonia	697	1	0	0	1
242	Elsberry	693	1	0	0	1
243	North Platte	680	1	0	0	1
244	Rich Hill	668	2	0	0	2
245	Conway	667	2	0	0	2
246	Rock Port	662	1	0	0	1
247	Canton	650	1	0	0	1
476	Hermitage	142	1	0	0	1
477	Williamstown	139	1	0	0	1
478	Dadeville	133	1	0	0	1
479	Gorin	128	2	0	0	2
480	Wyaconda	119	1	0	0	1
481	Coffey	109	1	0	0	1
482	Wheeling	108	1	0	0	1
483	Ravanna	105	1	0	0	1
484	Martinsville	97	1	0	0	1
485	Ethel	96	1	0	0	1

TABLE 14

Per pupil cost for educational supervisors and special services personnel of large, median, and small districts in Iowa, 1965–1966.*

			Per Pupil Cost			
			Spec. Serv. Person.		Ed. Super. Person.	
Rank	District	Enrollment	Total cost	Per pupil cost	Total cost	Per pupil cost
1	Des Moines	44,954	$705,365	$15.69	$421,173	$ 9.37
2	Cedar Rapids	23,596	376,746	15.97	243,695	10.33
3	Davenport	21,592	–	–	–	–
4	Waterloo	19,469	148,488	7.63	290,638	14.93
5	Sioux City	18,324	220,119	12.02	164,236	8.96
6	Council Bluffs	15,252	81,596	5.35	146,438	9.60
7	Dubuque	8,861	135,981	15.35	116,314	13.13
8	Ottumwa	8,199	103,497	12.62	82,865	10.23
9	Iowa City	7,870	0	0	17,853	2.27
10	Fort Dodge	7,812	74,056	9.48	163,739	20.96
238	Beaman-Conrad**	723	15,000	20.75	103,850	143.64
239	Holstein	722	16,300	22.58	15,920	22.05
240	Turkey Valley	719	10,583	14.72	6,512	9.06
241	Montezuma	717	15,000	20.92	0	0
242	Eastwood	714	30,499	42.72	6,760	9.47
243	Adair-Casey	713	16,500	23.14	0	0
244	Buffalo Center	708	10,275	14.51	0	0
245	Twin Cedars	708	10,950	15.47	0	0
246	H.L.V.	707	0	0	1,350	1.91
247	Underwood	705	13,700	19.43	10,100	14.33
446	Diagonal	261	0	0	0	0
447	Ayrshire	261	2,000	7.66	0	0
448	Marathon	243	–	–	–	–
449	Garrison	237	830	3.50	1,715	7.24
450	Palmer	236	–	–	–	–
451	New Providence	235	0	0	–	–
452	Steamboat Rock	231	5,800	25.11	0	0
453	A.C.L.	226	0	0	0	0
454	Rake**	211	0	0	0	0
455	Rembrandt	195	–	–	41,110	195.36
					–	–

* Includes all secretarial costs.

** District has included some classroom teachers' salaries in Educational Supervisors' budget.

TABLE 15

Per pupil cost for educational supervisors and special services personnel of large, medium, and small districts in Missouri, 1965–1966.

			Per Pupil Cost			
			Spec. Serv. Person.		Ed. Super. Person.	
Rank	District	Enrollment	Total cost	Per pupil cost	Total cost	Per pupil cost
1	St. Louis	123,733	$653,320	$ 5.28	$1,332,826	$10.77
2	Kansas City	79,835	867,983	10.87	662,220	8.30
3	Springfield	23,805	77.508	3.26	164,689	6.92
4	Ferguson	16,795	83,850	4.99	72,000	4.29
5	St. Joseph	16,489	43,200	2.62	40,500	2.46
6	Rayton	15,790	190,000	12.03	13,000	.82
7	Independence	14,955	30,715	2.05	52.238	3.49
8	Ritenour	14,677	82,861	5.92	0	0
9	Hazelwood	14,536	36,628	2.52	45,863	3.16
10	Hickman Mills	12,682	0	0	70,547	5.56
238	Albany	749	0	0	0	0
239	Qulin	710	0	0	0	0
240	Milan	706	0	0	6,725	9.53
241	Laddonia	697	0	0	0	0
242	Elsberry	693	0	0	13,376	19.30
243	North Platte	680	0	0	0	0
244	Rich Hill	668	0	0	0	0
245	Conway	667	9,600	14.39	10,400	15.59
246	Rock Port	662	0	0	0	0
247	Canton	650	0	0	5,005	7.70
476	Hermitage	142	0	0	0	0
477	Williamstown	139	0	0	0	0
478	Dadeville	133	0	0	0	0
479	Gorin	128	0	0	0	0
480	Wyaconda	119	0	0	0	0
481	Coffey	109	0	0	0	0
482	Wheeling	108	0	0	0	0
483	Ravanna	105	0	0	0	0
484	Martinsville	97	0	0	0	0
485	Ethel	96	0	0	0	0

TABLE 16

Per pupil cost for educational supervisors of large, median, and small districts in South Dakota, 1965–1966.*

Rank	District	Enrollment	Educational Supervisors	
			Total Cost	Per Pupil Cost
1	Sioux Falls	18,114	$155,834	$ 8.60
2	Rapid City	13,369	72,758	5.44
3	Aberdeen	5,697	17,179	2.88
4	Huron	3,980	9,577	2.41
5	Douglas	3,894	6,496	1.67
6	Watertown	2,781	44,027	11.64
7	Mitchell	2,915	0	0
8	Brookings	2,855	3,313	1.16
9	Pierre	1,763	0	0
10	Yankton	1,595	70	.03
103	Armour	331	0	0
104	Bowdle	330	0	0
105	Herreid	326	6,628	20.33
106	Alexandria	322	0	0
107	Egan	321	0	0
108	Hill City	313	0	0
109	Roscoe	311	0	0
110	Plankington	309	0	0
111	Veblen	305	4,867	15.96
112	Tripp	303	0	0
206	Claremont	111	0	0
207	Vivian	110	0	0
208	Worthing	106	0	0
209	Glenham	103	0	0
210	Volin	102	1,100	10.78
211	Oelrichs	93	0	0
212	Witten	89	0	0
213	Interior	75	2,940	39.20
214	Bison	72	0	0
215	Fairview	39	0	0

* Costs for Special Services Personnel not available in South Dakota.

TABLE 17

Per pupil cost for general administration secretaries of large, median, and small districts in Iowa, 1965–1966.

Rank	District	Enrollment	No. Sec.	Total Cost	Cost Per Pupil
1	Des Moines	44,954	6	$25,580	$ .57
2	Cedar Rapids	23,596	5	22,994	.98
3	Davenport	21,592	–	–	–
4	Waterloo	19,469	5	24,119	1.24
5	Sioux City	18,324	12	52,821	2.88
6	Council Bluffs	15,252	9	34,170	2.24
7	Dubuque	8,861	9	38,778	4.38
8	Ottumwa	8,199	2	11,575	1.41
9	Iowa City	7,870	2	10,650	1.35
10	Fort Dodge	7,812	15	49,690	6.36
223	Beaman-Conrad	723	2	6,000	8.30
224	Holstein	722	1	4,200	5.82
225	Turkey Valley	719	3	8,878	12.35
226	Montezuma	717	2	5,800	8.09
227	Eastwood	714	3	6,710	9.40
228	Adair-Casey	713	4	6,730	9.44
229	Buffalo Center	708	1	3,900	5.51
230	Twin Cedars	708	1	2,400	3.39
231	H.L.V.	707	1	4,600	6.51
232	Underwood	705	1	3,000	4.26
446	Diagonal	261	1	*	–
447	Ayrshire	261	1	2,700	10.35
448	Marathon	243	–	–	–
449	Garrison	237	.5	1,303	5.50
450	Palmer	236	–	–	–
451	New Providence	235	0	0	0
452	Steamboat Rock	231	1	3,000	12.99
453	A.C.L.	226	1	4,400	19.47
454	Rake	211	1	1,298	6.15
455	Rembrandt	195	–	–	–

* Secretary listed but no salary reported.

TABLE 18

Per pupil cost for special services secretaries of large, median, and small districts in Iowa, 1965-1966.

Rank	District	Enrollment	No. Sec.	Total Cost	Cost Per Pupil
1	Des Moines	44,954	70	$226,642	5.93
2	Cedar Rapids	23,596	3	9,576	.41
3	Davenport	21,592	–	–	–
4	Waterloo	19,469	4	16,738	.86
5	Sioux City	18,324	2	6,500	.36
6	Council Bluffs	15,252	1	3,120	.21
7	Dubuque	8,861	11	33,780	3.81
8	Ottumwa	8,199	2	9,595	1.17
9	Iowa City	7,870	0	0	0
10	Fort Dodge	7,812	3	9,752	1.24
223	Beaman-Conrad	723	1	2,000	2.77
224	Holstein	722	1	2,000	2.77
225	Turkey Valley	719	0	0	0
226	Montezuma	717	0	0	0
227	Eastwood	714	1	2,497	3.50
228	Adair-Casey	713	0	0	0
229	Buffalo Center	708	0	0	0
230	Twin Cedars	708	0	0	0
231	H.L.V.	707	0	0	0
232	Underwood	705	0	0	0
446	Diagonal	261	1	*	–
447	Ayrshire	261	0	0	0
448	Marathon	243	–	–	–
449	Garrison	237	0	0	0
450	Palmer	236	–	–	–
451	New Providence	235	0	0	0
452	Steamboat Rock	231	0	0	0
453	A.C.L.	226	0	0	0
454	Rake	211	0	0	0
455	Rembrandt	195	–	–	–

* Secretary listed but no salary reported.

TABLE 19

Per pupil cost for educational supervisors' secretaries of large, median, and small districts in Iowa, 1965–1966.

Rank	District	Enrollment	No. Sec.	Total Cost	Per Pupil Cost
1	Des Moines	44,954	10	$42,258	.94
2	Cedar Rapids	23,596	9	24,393	1.03
3	Davenport	21,592	–	–	–
4	Waterloo	19,469	6	24,892	1.28
5	Sioux City	18,324	5	17,912	.98
6	Council Bluffs	15,252	2	6,280	.41
7	Dubuque	8,861	2	5,673	.64
8	Ottumwa	8,199	1	4,201	.51
9	Iowa City	7,870	2	8,253	1.05
10	Fort Dodge	7,812	1	3,120	.40
223	Beaman-Conrad	723	0	0	0
224	Holstein	722	2	4,000	5.54
225	Turkey Valley	719	0	0	0
226	Montezuma	717	0	0	0
227	Eastwood	714	0	0	0
228	Adair-Casey	713	0	0	0
229	Buffalo Center	708	0	0	0
230	Twin Cedars	708	0	0	0
231	H.L.V.	707	0	0	0
232	Underwood	705	0	0	0
446	Diagonal	261	0	0	0
447	Ayrshire	261	0	0	0
448	Marathon	243	–	–	–
449	Garrison	237	0	0	0
450	Palmer	236	–	–	–
451	New Providence	235	0	0	0
452	Steamboat Rock	231	0	0	0
453	A.C.L.	226	0	0	0
454	Rake	211	0	0	0
455	Rembrandt	195	–	–	–

TABLE 20

Per pupil cost for board of education and board secretaries of large, median, and small districts in Iowa, 1965–1966.

Rank	District	Enrollment	Board and Sec. Cost	Per Pupil Cost
1	Des Moines	44,954	$ 51,710	$ 1.15
2	Cedar Rapids	23.596	121,206	5.14
3	Davenport	21,592	64,503	2.99
4	Waterloo	19,469	8.466	.44
5	Sioux City	18,324	13,429	.73
6	Council Bluffs	15,252	36,413	2.40
7	Dubuque	8,861	7,705	.87
8	Ottumwa	8,199	29,715	3.64
9	Iowa City	7,870	190,982	24.20
10	Fort Dodge	7,812	37.102	4.70
223	Beaman-Conrad	723	4,279	5.90
224	Holstein	722	4,252	5.88
225	Turkey Valley	719	4,541	6.30
226	Montezuma	717	4,980	6.85
227	Eastwood	714	48,270*	67.50
228	Adair-Casey	713	5,647	7.91
229	Buffalo Center	708	3,155	4.45
230	Twin Cedars	708	5.944	8.40
231	H.L.V.	707	2,672	3.78
232	Underwood	705	4,736	6.70
446	Diagonal	261	2,050	7.85
447	Ayrshire	261	2,702	10.30
448	Marathon	24[illegible]	5,691	23.42
449	Garrison	237	2,170	9.17
450	Palmer	236	4.499	19.00
451	New Providence	235	1,864	7.90
452	Steamboat Rock	231	535	2.31
453	A.C.L.	226	3,708	16.30
454	Rake	211	1,799	8.50
455	Rembrandt	195	2,177	11.11

* This item inadvertently contains IPERS anl FICA payments for all employees for the Eastwood district for 1965–1966.

Part Three

SUMMARY

The general problem of this investigation was the determination and analysis of costs for central administration of public school districts in South Dakota, Iowa, and Missouri. Financial reports to the state education agency for the school year 1965–1966 were examined from thirty school districts in each state. Districts selected were the ten largest, ten clustered around the median district size, and the ten smallest.

1. "What were the costs of school district central administration excluding costs of administering attendance units?"

Tables 2 through 4 contain total and per pupil costs of general administration for the 90 districts studied. Of course, total dollars expended were greatest in large enrollment districts; however, as district enrollments dropped, per pupil costs increased rapidly. Larger districts in Iowa and South Dakota spent more per pupil for general administration; when small districts were considered, the per capita costs for administration was greatest in Missouri.

2. "What were the component costs of district central administration?"

Total costs for central administration (Tables 6–8) were found to include expenditures for the board of education and board secretary, superintendent and assistants, business manager and assistants, educational supervisors, special services personnel, and clerks and secretaries assigned to each of these areas. Large districts generally spent more for special services than supervision, and a still smaller amount for general administration. Median sized districts spent more for general administration than for special services or educational supervisors. The small districts of each state spent almost nothing for special services, and the total allotted to general administration would seldom equal the superintendent's salary, indicating a secondary assignment such as teaching.

3. "How do these costs vary per capita (per pupil) among districts and between states?"

Per capita expenditures for both general administration and total central administration varied inversely with district enrollment. Per pupil costs for general administration were least in large districts, considerably higher in median sized districts and, on the average, had increased three- to ten-fold among the smallest ten schools. Generally speaking, South Dakota schools had the lowest per pupil expenditures for general administration followed by Iowa and Missouri. (Table 5).

Per capita expenditures for total central administration also varied inversely with the size of district; however, the addition of costs for special services and educational supervisors tended to reduce the range of per pupil costs. Larger districts still had a significant per pupil economy, *e.g.*, the Iowa mean per pupil costs by size classification were $35.35 for the largest ten districts, $78.88 for median districts, and $73.55 for the smallest ten districts. Interstate comparisons of total central administration costs were possible only for Iowa and Missouri because secretarial and special services costs were not available for South Dakota. Missouri costs generally were slightly lower in each size classification.

4. "What is the relationship of district central administration services offered to district size?"

Small- and median-sized districts did not have the services of educational supervisors or personnel assigned to special services (Tables 9–11). Districts with 10,000 or more students spent more money for supervision and special services than for general administration. Districts of median size or smaller spent most of their total administrative budget on superintendents, assistants, and secretaries.

5. "Insofar as can be determined, does efficiency (*i.e.*, reduction of per pupil costs) continue to increase as district enrollments mount, or is there an administrative over-burden present in very large districts which diminishes administrative economy?"

Inspection of tables 2–4 and 6–8 revealed no evidence of administrative over-burden in very large districts. Each of the three states has one or more relatively large districts (Des Moines, St. Louis, Kansas City, Sioux Falls). Invariably these districts had the greatest number of administrative, supervisory, and special services personnel among the ten districts in their size classification. Nonetheless these "super districts" consistently had lower per pupil costs than the bulk of the districts sampled. If over-burden does indeed occur in very large districts, the districts studied were not large enough to demonstrate this phenomenon.

6. "Is a broad range of administrative services generally available to all districts, or are special services, educational supervisors, and administrative specialists found only in larger districts—in high cost districts?"

No! Only the larger districts included in this study offered a broad range of administrative services, and because these were three states having mostly small communities and school districts; even some of the districts in the top ten classification had fewer than 5,000 students and rather limited services. Obviously, however, if two districts have about the same enrollment and one employs many more supervisors, administrators, and special services personnel, that district will have higher per pupil costs for total central administration.

Conclusions and Recommendations

Several assumptions and limitations of this study should be considered in evaluating the findings and the conclusions. First, a sample of thirty districts was used—a sample selected to show contrasts, not a random sample of all districts. Second, numbers of personnel reported are on a "school year basis" while financial reporting was on a "fiscal year basis." The net effect was to over-report budgeted amounts in terms of staff and probably in terms of enrollments. Third, the services of county and other intermediate educational agencies are not considered. In all fairness, these agencies can and, in some instances, probably do make up for the lack of supervisors and special service workers in small districts.

Finally, when considering school district reorganization two factors generally predominate—*effectiveness* and *efficiency*. Effectiveness is usually expressed in terms of the adequacy of the educational program, while efficiency is expressed in terms of getting the most for the tax dollar. This research has been concerned with both effectiveness and efficiency; however, no evaluation has been made of the educational quality of any of the administrative services examined. The study dealt with the educational opportunities provided to pupils in attendance units by the present administrative districts and the costs involved.

The following conclusions and recommendations seem warranted and in keeping with the limitations and findings of the investigation:

1. The tables in the findings section of this report which deal with salaries of administrative personnel and salaries of supervisory and special services employees definitely show that many small- and median-sized districts are not as effectively operated, either from the economic point of view or from a consideration of opportunities for effective educational program, as are large districts.
2. Assuming total educational costs of 500 to 600 tax dollars per child per year, administration of small districts is taking too big a slice, 80 to 100 dollars per child instead of the 10 to 20 dollars of a large district.
3. The high per pupil costs of small districts were not a result of excessive salaries. Generally, only a superintendent was employed and the salary amounts were modest for this position in small and median districts.
4. In addition to having lower per pupil costs, it would appear that larger districts obtain the services of better, more qualified personnel. For example, Iowa's top ten districts had nine superintendents with doctorates, the superintendents of the median-sized districts held master's degrees and were in their forties, the superintendents of the smallest districts generally had the least formal preparation and were very young or nearing retirement age.
5. If the assumption is made that educational supervisors and special services personnel are necessary for an effective school educational program, then these three states need larger school districts.
6. Perhaps it is impossible to say just how large the pupil enrollment should be in any given school district; however, the data presented in this report show that it is expensive to operate schools with small enrollments. For example, only one of the thirty large districts studied expended as much per pupil for administration salaries as the average per pupil expenditure of median-sized districts.
7. The tables in this report do give some indication regarding the size of a school district and the services available from the central administration. Below 3,000 students, few districts had more than one or two supervisors and half a dozen special services employees. Median-

sized districts of these states had almost no supervisors and very few special services personnel. Districts in the "smallest ten" classification had almost no central administration employees other than the superintendent--who often was devoting only part of his time to administration.

8. Reorganizing the smallest districts so that the bulk have enrollments equal to the present state medians would not suffice, even though this would mean a ten-fold increase for the smallest districts. These states have median enrollments so small and, of course, half the districts so small, that grass roots reorganization with one small community joining with one or two others would be practically meaningless to administrative efficiency and effectiveness as measured by this investigation.
9. To obtain the kinds of per pupil economy and the availability of special services and supervisory personnel found to be possible (and deemed desirable), mergers would be needed which would result in total K–12 enrollments of at least three to five thousand.
10. Considering *only the administrative aspects*, the adjacent-town type of traditional school district merger really holds little promise for obtaining the district size necessary for the economies needed. The process would take too long and would of necessity involve too many communities with too many local interests and too much built-in resistance to change. Intermediate- and county-type agencies could provide services missing, but these tend to add another layer of administrative costs to the existing expensive small-district pattern.
11. It is recommended that, in each of the three states, more authority be given by law to the state education agency to plan and direct reorganization of all school districts. With this authority for change should be given suitable power for forcing compliance, such as the power to reduce or withhold state aid.

The new basic administrative school districts should have a minimum of 3,000 to 5,000 pupils in these three states. Larger districts would be desirable—20,000 or more—wherever such enrollments can reasonably be combined.

Finally, a plea must be made for more cost analysis of educational services. Per capita or per pupil costs have no unique magic—but they do provide a very interesting, if seldom used, research tool for evaluating educational inputs and economies. Educators seldom use more than the gross figure of annual cost-per-child because present accounting and reporting procedures almost totally block a more careful scrutiny. These blocks can be removed.

Public school leaders, university-based researchers, and state legislative research bureaus should use, and encourage the use of, per-pupil cost comparisons. The present writers are convinced that this move would do much to promote the kind of "healthy dissatisfaction" with the status quo of district organization, a dissatisfaction needed to trigger a massive, state-wide change in the basic administrative structure of our public schools.

CHAPTER 11

STRUCTURING EDUCATION FOR BUSINESS MANAGEMENT

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INTRODUCTION

Studies of school district organization generally include an examination of enrollments, average daily attendance, assessed valuation, potential and predicted growth rate, bonded indebtedness, school district boundaries, transportation, special services and other educational factors, but little concern or attention is given to the business functions.

It is easy to discuss physical size and geographical boundaries, but it is very difficult to grapple with the more nebulous concept of service, particularly in an area that covers such extremes.

When one attempts to define School Business Management, it can best be delimited in terms of functions and responsibilities. The following is an abbreviated list of areas that are considered relevant to business management as it relates to educational administration:

1. Personnel administration
2. Office management
3. Accounting
4. Budget making
5. School building construction and planning
6. School building operation
7. School building maintenance
8. Purchasing
9. Cafeteria management
10. Transportation
11. Insurance
12. School surveys and population studies
13. School law[1]

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[1] Roe, William H., *School Business Management* (New York: McGraw-Hill Book Co., 1961), pp. 9–10.

A longer and more complete list is found in Bulletin 21 of the Association of School Business Officials of the United States and Canada.

Major Areas of Responsibility of School Business Administrators.

A. Budgeting and Financial Planning
B. Purchasing and Supply Management
C. Plant Planning and Construction
D. School-Community Relations
E. Personnel Management
F. In-Service Training
G. Operation and Maintenance of Plant
H. Transportation
I. Accounting and Reporting
J. Accounting and Reporting
K. Office Management

Tabulation of Typical Duties.

I. Financial Planning
II. Accounting
III. Debt Service and Capital Fund Management
IV. Auditing
V. Purchasing and Supply Management
VI. School Plant Planning and Construction
VII. Operation of Plant-Custodial, Gardening, Engineering Services
VIII. Maintenance of Plant
IX. Real Estate Management
X. Personnel Management, Records, Supervision of non-instructional staff, Relationships with instructional staff
XI. Permanent Property Records and Custody of Legal Papers
XII. Transportation of Pupils
XIII. Food Service Operations
XIV. Insurance
XV. Cost Analysis
XVI. Reporting
XVII. Board Policies and Administrative Procedures as Related to Fiscal and Non-institutional Matters
XVIII. Responsibilties for School Asessment, Levy, and Tax Collection Procedures as may be set by law.[2]

Thus it is clear that to define this function within narrow limits is noticeably complicated. Because of the broad nature of the job description and because of the lack of a systematic and disciplined treatment of school business management, it becomes difficult to propose criteria and guidelines that are defensible in terms of scientific research.

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[2] Bulletin No. 21, "The School Business Administrator" (Chicago: Association of School Business Officials, 1960), pp. 16, 17, 18.

STATEMENT OF PROBLEM

The problem is to propose criteria and guidelines for the establishment of school districts which would make possible efficient and effective school business management, with economy of operation; to give consideration to optimum and minimum criteria for varying geographic factors. In working with this problem, primary consideration will be given to a system of functional administrative units that will provide quality programs and services, efficiently and economically, in a rapidly changing social and economic society.

DEFINITION OF TERMS

Attendance Unit

This shall mean the local school building including the administrative, professional, and non-professional staff along with the students in attendance.

District or Local Administrative Unit

This shall mean the locally constituted school district, as legally defined in each state, operating under a local board of education and carrying out the various activities prescribed by law.

Area or Intermediate Administrative Unit

This shall mean a geographical area larger than a district; an area that may include a county or more than one county contiguous to each other.

Regional Administrative Unit

This shall mean a larger geographical region than an area. It may include several intermediate units held together because of a regional urban area, or a natural geographical region.

State

This is the structure responsible for education in a given geographical area.

Multi-State

This is the cooperation of two or more states in providing services, direct or indirect.

PURPOSES OF THIS PAPER

The purposes of this paper are to identify the problems of school business administration through an analysis of:

1. Those services best provided at the attendance level, with economy and efficiency, and consistent with accepted practices.
2. Those services that can best be accomplished at the district level with economy and efficiency, and consistent with accepted practices.
3. Those services that can best be accomplished at the area level with economy and efficiency, and consistent with accepted practices.

4. Those services that can best be accomplished at the regional level with economy and efficiency, and consistent with accepted practices.
5. Those services that can best be accomplished at the state level with economy and efficiency, and consistent with accepted practices.
6. Those services that can best be accomplished at a multi-state level with economy and efficiency, and consistent with accepted practices.

SCHOOL BUSINESS MANAGEMENT FUNCTIONS AT THE LOCAL ATTENDANCE CENTER

The local attendance center greatly benefits from educational business management in terms of sevices received. An effective and economic operation will yield services that are connected with all the facets of school business administration. To provide these services, the individual attendance center must be large enough to warrant the extension of all known assistance. There is evidence that elementary centers should be large enough to provide services for between 300 to 500 students, K–6, with apparent trends toward a maximum of 900. Limits on Junior High Schools, 7–9, would seem to be from 300 to 500 with a minimum recommendation of 100 in grade nine with apparent trends near 200. Senior high school enrollment, grades 10–12, range from a minimum recommended 450 to 1,800 with trends toward 2,500.[3]

Similar figures are supported by Morphet, Reller and Johns.

> Elementary schools with kindergarten through six might range from approximately 200 to 700. A student population of 300 to 900 would be regarded favorably for a junior high school. Senior high schools with a population of 400 to 1,500 would appear desirable.[4]

However, the educational park concept would indicate that urban centers may be moving to extremely large junior and senior high school attendance centers. Some of these centers may enroll upwards of 20,000 students.

> . . . consideration of a plan whereby a city of 100,000 population might have only one school for its 15,000 or even 20,000 students. A school of this size could afford to employ specialists whose energies would not be wasted in traveling from school to school.[5]

The following list itemizes the service functions that should be provided to a local attendance unit when that unit falls within the minimum and maximum sizes that have been identified in various studies and research.

1. Provision for hiring, placement, supervision, and dismissal of non-certificated personnel.

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[3] Inman, William E., "The Factor of Size and School District Organization," Unpublished Paper, The Great Plains Project, Lincoln, Nebraska, 1967.

[4] Morphet, Edgar, Johns, Roe L., Reller, Theodore L., *Educational Organization and Administration* (Englewood Cliffs, New Jersey, McGraw-Hill, Inc., 1967), p. 324.

[5] *Ibid.*, p. 315.

2. Provision for a system of effective and efficient office management.
3. Provision for centralized accounting services.
4. Provision for school building maintenance at a centralized level.
5. Provision for a centralized purchasing program.
6. Provision for cafeteria assistance and food services.
7. Provision for student transportation.
8. Assistance in budget making and control.
9. Assistance in building operation.

The primary purpose of educational business service is to provide support to the educational functions of a school. Education takes place at the attendance unit. Few school business activities should then take place within these confines. Business management activities should take place at a higher level with service the essential role within the individual school.

DISTRICT ADMINISTRATIVE UNIT

The local district is the basic administrative unit in American education. Here the local board of education establishes policy and the superintendent operates with his staff in implementing the basic wishes of the constituency.

The functions of school business management have generally been handled at the central office level of individual districts, although some districts have delegated some functions, such as purchasing, to the various schools in the district. Whether the central operation of all functions has been uniformly economical or effective is a matter to be questioned. However, it is at this level of educational administration that the question is most frequently asked, "When does a school system need a school business administrator?" Bulletin No. 21 of the American School Business Officials identifies the following basic criteria for making this decision.

1. Does the district do its own bookkeeping?
2. Does the district write its own warrants?
3. Does the district operate a pupil transportation program?
4. Does the district operate a food services program?
5. Is the district growing rapidly?
6. Is the district engaged in a building program or a planned program?
7. Does the district have a separate research office or is the business department expected to do considerable research?
8. Is the school district required to make its own planning studies?
9. Is the business manager expected to exercise considerable supervision and direction for non-certificated classified employees?
10. Is the district custodian of its own funds?
11. Does the district have fiscal independence?[6]

If a majority of the above questions can be answered in the affirmative, then there is good evidence to indicate a need for a qualified school business manager.

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[6] Hill, Fredrick W., *The School Business Administrator*, Bulletin No. 21, Association of School Business Officials, Chicago, 1960.

In identifying the qualifications of such an individual, the same reference lists the preparation that is desirable.

> In the preparation of future school business administrators, having chief responsibility for all school business functions, it is probable that a minimum of a B.S. or B.A. degree, with appropriate systematic study in school business administration, general administration, school law, finance and accounting, school plant operation, planning and construction, school curriculum, management techniques, and personnel work, as well as broad general education, will be required. In many communities no administrative posts will be assigned to persons having less than a Master's degree. . . . Preference will be given to those whose training and experience include some aspect of education or teaching.[7]

Concomitant with this problem of "is a manager necessary" comes the question of what size should a school district be in order to provide adequate services to the local school.

There is evidence to suggest that the size of an ideal school district has moved upward and is continuing to be evaluated in terms of a larger rather than a smaller dimension. This dimension would include both numbers of students and geographical proportions.

In defining the size of a school district, there is a large and conflicting array of figures, ranging from a minimum of 1,000 (Washington State Department of Education) to a maximum of 50,000 (Ohio Department of Elementary School Principals.[8]

Research suggests that larger school districts cost less to operate. In a study by Hanson in 1963, there is evidence to indicate costs per pupil decrease with increased school district size.

> The costs per pupil were found to decrease in every state in the sample. The median difference in per-pupil costs in districts with 1,500 students and those districts whose costs were lowest was about $27 per pupil
>
> Table 1, below, shows the dollar decline in unit costs as districts increase in size from 1,500 students up to that size where costs were found to be lowest.[9]

TABLE 1
Cost and size by selected states.

State	Difference in cost per student	Most Economical Size (Students)
Nebraska	$15	20,000
New Jersey	19	30,000
California	21	50,000
Massachusetts	26	79,028
Washington	27	91,762
Oregon	28	50,000
New Mexico	33	44,000
Wisconsin	36	86,667
New York	96	160,000
Median	27	50,000

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[7] *Ibid.*, pp. 30-31.

[8] Inman, William E., *op. cit.*, p. 9.

[9] Hanson, Nels W. "The Influence of Size on Per Pupil Costs in Public Schools," School Business Affairs, November 1965, p. 249.

Given a business manager and a school district with enough pupils to operate effectively and economically, somewhere between 1,500 and 2,500 as a minimum and 50,000 as a maximum, then what services can be recommended at this level.

A primary service to be provided in business management is *Budget Making*. The school budget is an expression of the educational program and philosophy of the district. The business manager is in a position to take the leadership in formulating plans that include:

1. Materials for budget preparation.
2. Budget calendar.
3. Formalizing the budget.
4. Financing the budget.
5. Publishing the budget.
6. Controlling the budget.

A second area in which service may be provided to the local school is within the scope of *Fund Accounting*.

Every school district needs to maintain complete books and records of financial expenditures and use of school property, using standardized forms and accounting procedures, authorized by local board action. This system requires that the local board receive from the superintendent, via the business manager, monthly reports on the current status of all district funds and accounts, and in turn, these transactions will be formalized by placing them in the district minutes.

Accounting is now changing rapidly due to the utilization of mechanical equipment and/or a data processing installation that enables districts to do a more complete job, faster and more accurate with less manpower.

A third function of the district business manager would be to help *standardize office procedures* for each attendance unit. Research Bulletin No. 4 of the Association of School Business Officials lists guiding principles to follow in office management. They include the following:

1. Office organization.
2. Staff relationships.
3. Office policies.
4. Personnel administration.
5. Communications.
6. Forms.
7. Office layout and equipment.[10]

In the preparation of this paper, and in visiting many small school districts, it has been evident that the local school needs much help in organizing and developing good office practices. In a majority of the schools, the lack of organization and accepted procedures is obvious.

School Plant Planning, a fourth consideration, is a particular function at this level of administration. The local board, with the citizens in the various attendance districts, needs to become involved in a mutuality of understanding as it relates to the planning, construction, and use of school facilities. If the concept of the Intentional Community with the community school as a necessary adjunct of this viable partnership is to be the goal of reorganization, then the local district must take leadership in this area. Business managers play a large and important role in this function. Roe[11] lists twenty-eight procedural steps in the planning and construction of an educational facility. The local district cannot escape this role, since much of the financing of school buildings will probably continue to be carried out at the local level, at least in the foreseeable future.

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[10] Bragin, Jeanette, "Guiding Principles and Practices in Office Management," Association of School Business Officials, Bulletin No. 4, Chicago, 1966.

A fifth activity at the level of the district administrative unit would be *Operations*. The Association of School Business Officials identifies these operations in Research Bulletin No. 6. A list of these activities include:

1. Housekeeping (cleaning and sanitation)
2. Operation of mechanical and electrical plant.
3. Safety and security.
4. Equipment servicing and operation.
5. Upkeep of grounds.
6. Minor repairs.[12]

To be sure, the local principal provides a large amount of the day-to-day supervision of the operations (custodial) program, but the central office still retains primary responsibility for purchasing custodial supplies, overall supervision of the custodial service, setting district-wide standards, assignment of personnel, after-school use of facilities by community groups, and so forth.

A sixth area of concern at the district level would be *Cafeteria Management* and *Food Preparation*.

> School cafeterias exist primarily to make available to pupils a nourishing hot lunch at the lowest possible rates. Besides this primary function, there are educational advantages in a cafeteria activity. Propertly integrated into the total program, it provides opportunity for many learning experiences in the areas of health, social living and civic responsibility.[13]

The local district develops the following:

1. Policies for operation.
2. Administrative procedures.
3. Cafeteria accounting.
4. Inventories and inventory control.
5. Employee records.

Central kitchens can be developed by a district or by a larger administrative unit. This enables provision of better service at a more reasonable cost. School kitchens seem to be disappearing.

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[11] Roe, William H., *op. cit.*, pp. 178–179.

[12] Schaefer, John W., "What is Operations," Association of School Business Officials, Research Bulletin No. 6, Chicago, 1967.

[13] Superintendent of Schools, San Diego County, California, "A Guide to School Business Services" (Office of the Superintendent of Schools, San Diego County, California, June 1956), p. 38.

> Central kitchens, this plan concentrates food purchasing, menu planning and meal preparation in one or more central locations. Vehicles with specially designed vacuum containers and heated compartments are used to distribute the food to individual schools. Central kitchens have gained initial acceptance in the largest cities, where they have generally been successful. But more and more smaller cities, with no more than 100 or 150 cafeteria employees are investigating this method of food preparation.[14]

Advantages from such kitchens include:

1. Lower labor costs because of more efficient methods of food preparation.
2. Better purchasing and inventory control.
3. Uniformly high quality standards.
4. Reduced total expenditures for food preparation equipment because of the elimination of unit kitchens in individual schools.
5. Considerably less space required in the school buildings.[15]

A seventh area of concern at the district level would be *Transportation*, with all that this entails. Transportation will be covered more fully later.

An eighth area of concern is *Purchasing*. Local district purchasing, except in very large districts, may be a thing of the past. Because of this, purchasing will be covered in detail at a later time.

Maintenance of property, which includes upkeep of grounds, repairs to buildings and repair of equipment, will probably continue to be handled at the district level rather than the school level because of economies of operation. In sparsely populated areas, greater economy might be achieved by going to a regional or area-wide organization for these functions. This was evidenced when the author visited with over twenty small school districts in Iowa and discussed the possibility of joint maintenance operations. District after district expressed the concern over being able to find qualified mechanics, custodians, skilled craftsmen, etc. The problem is not one of knowing how or what to do, but that of finding skilled personnel in areas of sparsity.

The last area, and one in particular that needs attention, is *Student Activity Accounts.*

In our present period of educational growth, there is a plethora of school activities, with the attendant collection of funds.

The rationale for collecting and expending funds for student activities is to promote the well being of the students and their education.

> The raising and expending of activity funds by student bodies can have only one basic end in view: to promote the general welfare, education and morale of all the pupils and to finance the *normal legitimate* extracurricular activities of the student body organization without embarrassment to any individual student.[16]

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[14] Casey, Leo M., *op. cit.*, p. 104.

[15] *Ibid.*, p. 105.

[16] "A Manual of Accounting Principles and Procedures for Student Activity Funds" (Association of School Business Officials, Bulletin No. 17, Chicago, 1956), p. 10.

The concept of what is normal and legitimate is cogent to the issue. The funds are never to be used by the principal or superintendent as a personal "slush fund," to buy meals for visitors, for travel to games, etc.

> The management of student activity funds shall be in accordance with sound business practices, including sound secretary and accounting practices as well as audits in the same manner as regular school funds.[17]

AREA OR INTERMEDIATE ADMINISTRATIVE UNIT

Intermediate Administrative Units are becoming recognized as a future type of district organization, and not too far in the future at that. There is every reason to believe that these units will become more and more prevalent in the near future. There is also evidence that these units may move forward more rapidly than previously believed.

> In this time of rapid technological, social, and economic change, there is need in the over-all administrative structure of publication for a unit with the responsibility and ability to cope with new problems and implement new programs. A dynamic, flexible intermediate unit that is taskforce oriented can respond best to the workload demands created by these conditions. The State Department of Education is too remote and districts are too involved to function adequately without the services such a unit can provide.
>
> The intermediate unit should provide a level of leadership support and services to all districts, regardless of size.
>
> No definite pattern can be applied through the state in determining which specific functions or services belong to the school district. When a district is unable to meet adequately the needs of children because of sparsity of population, large concentrations of culturally deprived children, or other fundamental constraints, specific services may have to be provided by the intermediate unit.[18]

Size of the intermediate unit or area may vary from state to state. The largest unit in California has nearly 2 million pupils and encompasses some 85 districts. The smallest intermediate district in California has fewer than 200 pupils and only one local school district (in reality one district and two superintendents). Michigan is contemplating a change in their present system which now includes an intermediate district that must have 5,000 pupils enrolled, regardless of geographical size. There is consideration to raise the pupil enrollment to 10,000. At present Michigan has 60 intermediate units and is giving consideration to reducing this number to forty-five.

Examples of business services that can be provided by this unit include the following:

1. General Functions.
2. Accounting Functions.
3. Maintenance; School Building and School Bus.
4. Purchasing Functions.
5. Transportation.
6. Data Processing.

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[17] *Ibid.*, p. 10.

[18] California Association of County Superintendents, "The Future of the Intermediate Unit" (Publication by C.A.C.S., 1966), pp. 1–2.

General Functions

The intermediate unit can counsel and advise districts in the development of superior business practices, in the preparation of budgets, and in the planning of special expenditure programs, such as federal and special funded programs.

Districts need help in administering the statutory requirements passed by the legislature. Rules and regulations of the State Department of Public Instruction need interpretation and definition.

Functions of approval are essential to good business administration. Approval of budgets, contracts, expenditures, transfers, special funds, etc., are a service rendered by this unit.

Auditing is a requirement for fiscal soundness and demands the approval of an outside agency.

Accounting Functions

The area administrative unit is able to do a great deal in this area. Because this unit represents a larger area, and because the assessment base is larger, data-processing equipment can be made available. This would enable the district to provide:

1. Accounting of receipts and expenditures for constituent districts.
2. Payroll functions; preparation of payroll, making deductions, and keeping payroll records up to date.
3. Maintaining employment and retirement system records.
4. Other accounting functions as may be required.

There may be a criticism that this service is too far from the local district; however, modern data processing equipment and the records from this equipment are as close as the nearest telephone. All school districts in Oakland County, Michigan, will be tied into the data-processing center, districts representing some 250,000 students, and will be able to have instantaneous reports and information on students, accounts, attendance, etc., by using the tele-data equipment available in each district and in each school building.

Maintenance Functions

Maintenance relies on people. There is a great deal of work that needs to be done in the area of school building maintenance. There is a question as to whether there are sufficiently qualified people at the local level to do a professional job. The intermediate unit can provide selection and service standards that are of a higher level than those of the local school district. There is a great deal of concern for school bus maintenance. Districts are finding it increasingly difficult to provide adequate service. Would it not be feasible to have an area garage and service facilities in which the full-time mechanics specialize in school bus work, properly supervised and controlled by an agency that is equipped to provide such services? Other areas of maintenance can also be developed to a higher level.

> In a unified district all of these functions may be consolidated and coordinated for greater economy and efficiency. Since they are not educational functions, there is no need to break them down by attendance centers or neighborhood educational units, as is so desirable in the instructional program. On the contrary, these functions usually are performed more effectively when they are centralized.[19]

Purchasing Functions

When all the various business functions are considered, the one function at this level that demands particular attention is purchasing. Cooperative purchasing is a development with probably less than 10 percent of the *2,000 ASBO* member districts participating in such programs.[20] However, the advantages are recognized and need to be considered.

1. There is evidence that cooperative purchasing is of considerable value. In cooperative purchasing agreements, several school districts together submit a single large purchase requirement rather than several small individual purchases of the same items.
2. Cooperative buying with discretionary selection can be easily achieved through the intermediate administration unit which is rapidly becoming a service unit to local school districts.
3. Cooperative purchasing agreements clearly indicate their usefulness. Saving can result through buying in carload lots and case lots rather than small units.
4. Where cooperative buying has taken place, it has proved to be both practical and economical. Savings from cooperative programs were reported to be from 17 to 43.5 percent. Many schools have discovered the advantage of cooperative buying with city or county governments.
5. An orderly calendar of purchasing requirements during slack manufacturer season can be determined to provide an additional cost reduction and contribute to production volume during these periods.
6. More often than not the same supplier offers services to the same locality rather than quote to representative bids with a diversity of crash deadlines. A smaller number of bids in volume can be attended to more efficiently in cost analysis utilizing carload lots in many instances from their respective factory suppliers. Service and delivery schedules can be projected.[21]

Several counties in upper-western New York State have developed a cooperative purchasing combine to purchase fuel oil, gas and oil, busses, transportation contracts, cafeteria supplies, food, bread products, ice cream, paper supplies, and janitorial supplies. A summary statement indicates their acceptance of this program.

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[19] San Joaquin County, California Unification Studies, "Proposed Lodi Area Unified School District," January 6, 1966, County Office, San Joaquin County, California, Stockton, California. (Fugitive Material)

[20] Section Meeting Report, "Purchasing and Supply Management," 5th Annual Volume of Proceedings (Association of School Business Officials of the United States and Canada, October 15-19, 1962), pp. 206-207.

[21] *Ibid.*, pp. 207-208.

> The techniques of the purchase function have been explored in great depth not only by school purchasing officials but by all sectors of the economy both private and public. The legal and practical aspects of competitive bidding as a part of purchasing are well known to every competent purchasing official. By and large the era of the small independent vendor with limited capital and market opportunities has given way to mass distribution of an extremely broad range of products with widely varying characteristics and prices. If school districts are to share fully in the economic advantages of mass distribution, they must of necessity explore the techniques of mass acquisition.[22]

This same area has reported that there has been a savings of between 12 and 30 percent on common items used by participating school districts. Oakland County, Michigan, has had the same results. There they were able to save between $14 and $20 dollars on group purchases of typewriters. Nassau County, New York, has been cooperatively purchasing fuel oil, gas and oil, busses, food, bread products, ice cream, milk products, and cooperatively bidding on transportation services. An interesting quote illustrates their evidenced savings:

> One cannot expect the average householder to be exuberant about bidding whether it be by one school district or several combined. It is comparable to asking the full service department store to rush across the street to greet the new discount merchandiser.[23]

Training Functions

Another aspect of the area or intermediate unit should be the function of training personnel. The Oakland County Schools in Michigan have actively pursued the concept of development, maintenance, and implementation of in-service educational programs for the non-instructional personnel of local school districts.[24]

In rural states in particular, this function could be critical. Bus drivers, cafeteria employees familiar with food handling procedures, maintenance personnel, custodial employees, and even clerical and secretarial personnel should be trained and supplied to the individual districts. In a non-linear, rapidly changing society the local district will continue to have a very difficult time in finding adequate replacements for service personnel. A large geographical area with a much larger population pool could be one answer to meeting the needs of the local district and the local attendance center.

Transportation Functions

Ten million students ride to and from school each day in school busses. This is nearly 20 percent of the total school population of the United States.

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[22] Position Paper, Mid-Hudson Chapter, Nassau County Chapter, Southern Tier Chapter, Rochester Area Chapter, New York, 1966. (Unpublished Paper, in files of Association of School Business Officials Research Center, Chicago, Illinois.)

[23] *Ibid.*, p. 9.

[24] Job Description Title, Oakland County Intermediate School District, Michigan: Director of Personnel Job Description: "The Intermediate School District, Middle Echelon of Michigan's Three-Echelon State System of Education," Michigan Association of Intermediate School Administrators, January, 1967.

Such a large proportion of the population, with the concomitant costs involved, requires more than passing concern.

> School officials now regard school transportation as one of their major responsibilities. It is almost universally regarded as an integral part of the total educational program with the general objectives of providing equalization of educational opportunity and broadening the scope of educational programs. All children and youth, regardless of where they live, should have equal access to the services of a good school. It is often more practicable to attain this objective through transportation rather than by placing schools within walking distance of children. Also, the transportation program, if used wisely, can immeasurably broaden the scope of educational opportunities afforded children.[25]

An area or intermediate unit could well be responsible for development of board policies, use of computers to develop bus routes, training of bus drivers, inspection services, purchase of busses on an area wide basis, approval of special transportation contracts and maintenance services for transportation equipment.

San Diego County, California, has spent a great deal of time and effort in developing a continuing program in this area. Oakland County, Michigan, has likewise developed a colleagueal role in transportation services.

> The primary responsibility and function in the corporation (Oakland Intermediate School District) is the development, maintenance and operation of a bus driver education program for the bus drivers of the constituent school districts. The law enforcement function of the intermediate school district of the school transportation code which includes the audit of bus routes and the certification of the annual mileage by the school district is assured. Also, the director consults with directors of transportation of the local school districts on current problems and long range planning.[26]

In the future, as our society changes more and more rapidly, equal educational opportunity will become more of a vital issue, although some may feel that is the real crux of our immediate problem. However, it is the opinion of this writer that the full impact of equality and quality is yet to hit the educational scene. Because of this, school bus transportation will become more and more important and at the same time more and more of an issue. Transportation is expensive, costing from just a few dollars to well over a hundred dollars per pupil per year.

> Equalization of educational opportunity is vital to democracy. It is the birthright of every American youth to have the opportunity to develop his constructive capacities to the utmost. At the same time America can flourish and prosper and be truly democratic only if the talents of all are developed and allowed to contribute to the well-being of the nation. . . . A factor which plays a major role in safeguarding equal educational opportunity is the school transportation system which serves pupils in rural and suburban areas.[27]

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[25] Council of Chief State School Officers, "The Responsibilities of State Departments of Education for Pupil Transportation Services and School Plant Services" (Washington, D. C., 1958), pp. 8, 9, 10.

[26] Oakland County Schools, *op. cit.*, p. 19.

[27] Roe, William H., *op. cit.*, p. 227.

It is evident from this quote and others that school transportation plays a vital role in the educational process. A more thorough understanding and support of educational transportation needs to be considered. With the many problems at the local level, assistance from a higher level is mandatory. The area or intermediate unit can play a commanding role in the development of high standards of quality.

Data Processing Functions

As has been previously mentioned, our society is changing quite rapidly. American has become a protean society and a non-linear society that has no choice but to be swept along at an fantastic speed, appearing at times to be without sense of direction and purpose in its actions.

A great deal of this instability is due to the technological revolution brought about by the use of data processing equipment and the computer that continues to feed this electronic monolith. Traditional approaches to the problems in education have been found wanting. On the horizon stands a "society-eating-dragon," waiting expectantly for this dynamic culture to falter. Within this structure, education plays a consuming role. Because education is so closely related to the success of this society, it is imperative that the use of this equipment and the processes allied to it become part of the business and learning process.

> The computer is something to get excited about. Some school administrators may wonder whether the computer is a friend or an enemy, but one thing is certain: school administration is destined to be changed radically by it. It is a source of hope for the administrator confronted with many complex problems that thus far have defied solution.[28]

It is particularly important that the area or intermediate unit give serious consideration to this developing process. This is evident when research is considered. Costs for local districts are prohibitive, even to the most wealthy political subdivisions.

In a state pilot project in California, this whole problem was attacked in a systematic way and definite conclusions were drawn.

> A major concept in the program of the State Pilot Center was the feasibility of establishing regional centers for the processing of school data. Under this arrangement several districts within a region could utilize central equipment, staffing, and facilities and thereby realize a greater budget economy and greater uniformity in procedures and products. State funds might conceivably be allocated for such a purpose.[29]

This project limited itself to attendance accounting, grade reporting, standardized testing, by-products of these basic applications, and some cumulative record keeping. This project worked with a student population of some 35,000 students. The costs of this program were not exceedingly high.

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[28] AASA Committee on Data Processing, "Educational Data Processing and the School Administrator" (American Association of School Administrators, Washington, D. C., 1967), p. X.

[29] Richmond City Schools, Richmond, California: "A Report of an Experiment—The State Pilot Project in Educational Data Processing," 1964, p. 18.

> On the basis of the experience gained by the State Pilot Project, the staff personnel estimated that data-processing services for a school population of 35,000 would cost about $2.28 per student. This was the figure computed after breaking down the following costs given for a year: equipment, $33,000; materials and supplies, $10,000; salaries, $37,000.[30]

There should be consideration given to the concept regarding the minimum size district in terms of equipment, staff personnel, and other specific needs.

> The project staff estimated that for a unified school district of approximately 50,000 students, the necessary data-processing equipment should consist of a key punch, a verifier, a sorter, an interpreter, a reproducing punch, a tabulator, and possibly a collator. The processing staff should comprise at least two full-time employees, one to operate the key punch and tabulating machine, one to do both types of work and be able to attend to machine wiring as well—and a third employee to act as a back-up operator for each of the two regulars on the basis of such part-time assignments as might be needed. The rental cost for equipment would range between $400 and $900 per month, allowing for variations in the number and kinds of applications. An average cost might be $600 or $700.[31]

A larger district would provide better services and more economical operations.

> Referring to a unified school district that would have as many as 10,000 students and that would be going into data-processing for the first time, the project staff estimated that a district of this size should have EDP (Educational Data Processing) personnel and facilities equivalent to those of a district with 5,000, but with this important refinement: the tabulating and accounting machine should be one that has great abilities. Generally in this situation the tabulator would be doing a good deal more than financial accounting as a major job; it would also be doing pupil personnel jobs involving a large amount of alphabetic data. Although the staff size would be about the same, additional part time help might be required at times. Machine rental costs would approximately be the same as for districts having less than 10,000 enrollees downward to 5,000; possibly there would be a slight increase in the costs due to the acquisition of a higher-ability tabulator. Staff salaries would be approximately the same.[32]

The same report indicates that districts of 15,000 or more would use approximately the same amount of equipment, only with higher ability. Here ability refers to the efficiency of the equipment and its adequacy to store information, print at a more rapid rate, versatility, handling of multiple tasks, and the technical aspects of the equiment in terms of speed and range of programming. Rental would run approximately $1,500 to $2,500 a month. Staff would remain about the same, but there would be more salary because of additional time.

In a district with a student population of 25,000 or more, the needs for data-processing services are typically greater and of course much more complex.

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[30] *Ibid.*, p. 29.

[31] *Ibid.*, p. 35.

[32] *Ibid.*, p. 37.

> In districts of this type and of this range and size, the trend is away from mechanized equipment of slow-to-moderate speeds toward electronic equipment of high speeds with optimum ability. Monthly costs for renting electronic machines would be greater and the salaries paid key personnel for programming, analysis and management would be generally higher, the increased expenses would be considerably offset, over a period of time, by the elimination of several pieces of prior equipment. The rental costs for maintaining an installation of this magnitude, on the basis of a computer system, would amount to approximately $3,750 per month, or $45,000 per year.[33]

The costs of data-processing are recognized. The returns from these services are not as easily recognized or accepted. California has taken a serious look at this whole problem and has made recommendations concerning the addition of this service to the educational structure.

> Small districts of less than 10,000 average daily attendance may wish to send original-source documents (instructional and pupil) directly to the regional center for processing. These districts typically do not have sufficient volume to warrant the installation of their own data processing equipment.[34]

This study done by the Intermediate Units in California considers districts of medium size, somewhere between 10,000 to 30,000, ready for minimal equipment necessary to convert information from source documents into punch card or magnetic tape form. Larger school districts, beyond 30,000, could have a fairly complete line of equipment. However, they recognize that there is a great potential for this equipment and much needs to be done.

> The greatest unrealized potential of data processing is in the instructional fields, such as the instructional area of programmed learning and the future development of instructional material retrieval systems.[35]

Regional Units of Administration

In the future, several area or intermediate units may "hook-up" in a regional complex to provide services that cannot be met at sub-levels of administration.

Large computer based programs will by necessity be regionalized because of the expenses involved. However, the technology of these machines will make such programs feasible and not in the least unwieldy. One caution must be given, however. This has been recognized by the intermediate units in California.

> In order for a regional data processing center to be successful, it must be responsible to customer needs. District-level personnel should have a voice in determining the "output," i.e., the information and reports to be furnished to the districts. This decision determines the "input," i.e., the kind of data that must be fed into the machine. Without local support, a center cannot be successful.[36]

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[33] *Ibid.*, pp. 39–40

[34] "The Future of the Intermediate Unit," *op. cit.*, p. 48.

[35] *Ibid.*, p. 49

[36] *Ibid.*, p. 49.

The size of a region may be debatable. However, Michigan has given consideration to a region encompassing around 250,000 students. In the state of Iowa this would make approximately three regions; in Missouri, five regions; South Dakota would have a state-wide network; and in Nebraska, two regions would serve the entire state. There is evidence to indicate that this type of service is a step that must be taken if computers and education are to mesh properly.

Purchasing is another function that could take place at this level of administration. Large purchases, bidding on multiple buildings that are needed, purchasing of land, insurance contracts, etc., could well be a regional function.

State Level Functions

At the state level there are two functions with recommendations that fit particularly well. The first recommendation is that states, either singly or in groups, purchase all school busses and school bus equipment. The problems of safety, economy, adequacy, and efficiency should not be left to the local level. Recent inspections in Iowa indicated that 50 percent of the school busses did not meet National Safety Standards. Problems such as these could be eliminated if the states would purchase the busses at the state level and provide consistent updating of these standards at time of purchase. Since the states do set the standards, the burden of maintaining these regulations should be placed upon the state.

A second function that should be given serious consideration would be the establishment of state insurance. The success of the state retirement systems is evidence that more protection can be provided by the state than through commercial companies and at a much cheaper rate.

The states of Alabama, North Dakota, and South Carolina have provided insurance for school buildings for many years at a substantial rate of savings to districts, some 40 percent less than commercial rates in those states.

The Association of School Business Officials of the United States and Canada have published Bulletin No. 18, "Fire Insurance Principles and Practices." In this research bulletin they indicate that insurance for school districts is far too high.

In discussing public schools they indicate:

> This is a return of 31.81 cents of each dollar paid for insurance. When we consider that the average loss ratio for all fire insurance companies during the year 1954 was 57.2 cents per premium dollar collected, and that with this loss ratio companies could still make a profit of six cents per premium dollar, which is one cent above the recognized legitimate level, school business officials can well ask where the additional 25.4 cents is going.[37]

This would indicate that states could and should become involved in writing insurance for school districts, both in terms of quality and quantity of savings.

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[37] Salmon, Paul B., "Fire Insurance Principles and Practices," Research Bulletin No. 18 (Association of School Business Officials, Chicago, 1958), p. 39.

Multi-State Functions

There is reason to believe that states in the future may become regionalized into compacts that will provide services of various types and cooperate in terms of education. Research may be the key area of cooperation, but as yet little is being done. However, the fact that "The Great Plains School Organization Project" is in operation gives a clue to the future programs that may be developed.

Summary Statement

At a meeting in Omaha, Nebraska, in November, 1967, several professional business managers met to hold a "brain-storming session" concerning the problems of business management functions and school district organization. In general, the following conclusions were reached:

1. There seem to be reasonable expectations for economy to be realized through merger of services, if for no other reason than volume. This is particularly true at the intermediate or area level of administration.
2. Larger, merged districts have the money to hire more highly skilled employees with the resultant improvement in leadership and knowledge of business processes.
3. Uniformity of service over a broader area is desirable for both economic and educational reasons.
4. Benefits to be derived overshadow the disadvantages which may arise (i.e., greater distances traveled, communication problems, etc.).
5. Community respect for, and support of programs are enhanced by involving a larger area (i.e., more respect for a larger operation).
6. Efficiency and economy are realized because of the pooling of resources in terms of personnel and facilities.

The following is a model of school business administration services provided at various levels to provide economy and effectiveness with efficiency.

Local Attendance Center

K–6	300 to 500 plus students
Jr. High	300 to 500 plus students
Sr. High	450 to 1800 plus students

A SERVICE-RECEIVING ROLE THAT INCLUDES:

a. Certified personnel
b. Office management assistance
c. Assistance in budget making
d. Budget control procedures
e. Assistance in building operations
f. Assistance in building maintenance
g. Assistance in purchasing
h. Assistance in food services
i. Assistance in transportation

District or Administrative Unit

1,500 to 2,000	Minimum
5,000 to 10,000	Desirable
10,000 to 30,000	Optimum
50,000	Maximum

A SERVICE-PROVIDING AND SUPPORTIVE ROLE TO LOCAL ATTENDANCE CENTER THAT INCLUDES:

a. Administrative leadership
b. Fund accounting
c. Office procedures and standards
d. School plant planning
e. Cafeteria management and food preparation
f. Purchasing
g. Transportation
h. Maintenance
i. Operations, supervision, etc.
j. School activity accounting
k. Data processing

Area or Intermediate Administrative Unit

15,000 to 30,000	Minimum
30,000 to 50,000	Optimum
50,000 to 100,000	Maximum

A SERVICE-PROVIDING AND SUPPORTIVE ROLE TO THE DISTRICT OR ADMINISTRATIVE UNIT THAT INCLUDES:

a. General functions
b. Maintenance
c. Purchasing
d. Transportation
e. Data processing
f. Research and development

Inter-Area Cooperative Units (Regional)

250,000	Student optimum

A SERVICE-PROVIDING AND SUPPORTIVE ROLE TO THE INTERMEDIATE DISTRICT, THE LOCAL OR ADMINISTRATIVE UNIT THAT INCLUDES:

a. Data processing and computer operation
b. School plant planning and building programs
c. Research and development

State Administrative Unit

A SERVICE-PROVIDING ROLE TO ALL DISTRICTS TO INCLUDE:

a. Insurance
b. Bus purchases and supervision of safety standards
c. Data processing and computer operation
d. Research and development

Multi-State Units

A SERVICE-PROVIDING ROLE TO STATES AND ALL DISTRICTS THAT INCLUDE:

a. Data processing and computer operation
b. Research and development
c. Data banks

CLOSING STATEMENT

Throughout this paper, emphasis has been placed on improving efficiency and economy through the consolidation of services, or centralizing of various administrative functions, whenever feasible. It does not necessarily follow, however, that increasing size is good without limit. There are practical limits of size and distance that will tend to reduce efficiency, make communications difficult, and tend to "bureaucratize" an organization to the point where local needs are no longer recognized. Some of our larger city districts, such as New York and Chicago, are recognizing this and beginning to take steps to break up their great, monolithic districts into many smaller districts of more manageable size. Size, itself, is not the *only* factor in achieving economy (although it is probably the single most important), and the goal should be to find that optimum size where efficiency and economy will not be increased *significantly* by any further increase in size.

CHAPTER 12

THE EMERGING REGIONAL EDUCATIONAL SERVICE AGENCY: THE NEWEST MEMBER OF THE RESTRUCTURED STATE SCHOOL SYSTEM

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INTRODUCTION

The middle echelon agency has many titles in the several states which have a three-level structure. The most common title is that of the county office of education or the county school system. Other titles used include Intermediate School District (Michigan), Educational Service Unit (Nebraska), Board of Cooperative Educational Services (New York), and Cooperative Educational Service Agency (Wisconsin), and a number of variations of these basic titles.

The multiplicity of titles attached to the middle echelon agency makes precise definition of the regional education service agency somewhat difficult. Therefore, for purpose of this discussion, this unit of school government is defined as follows:

> In a three-echelon state school system, the regional educational service agency is the middle echelon unit—a unit which is organized on a regional base and which is structured primarily to serve local school districts.

The term "regional educational service agency" (or RESA Unit) rather than some other term is used because it most accurately describes certain concepts which will hopefully be incorporated in its development, mainly, a *regional*[1] base rather than a single county base, and an organization with a posture of *service* to local school districts rather than a unit which is essentially a regulatory or supervisory arm of the state education agency.

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[1] Regional should be understood to mean the joining of several administrative units *within* a state rather than the joining of units which cross state boundaries.

Organizational Patterns of State School Systems

Essentially, school government in the several states is organized around three basic organizational patterns:

1. One-echelon systems in which there is a single state unit of school government.

2. Some states are organized on a two-echelon system in which there is a state educational agency and a number of local school districts.

3. Still other states are organized on a three-echelon system in which there is a state educational agency, local school districts, and a middle, or second-echelon, unit.

In the 1965–66 school year, the most recent year in which comparative data are available, one state, Hawaii, operated a one-echelon system. Seventeen states, the majority of which are located in the South, operated a two-echelon system, and 32 states, or approximately two-thirds of the 50 states, functioned with a three-echelon structure. The most common form of second-echelon unit of school government is the county office of education.

History of the Second-Echelon Unit of School Administration

The county school system, or the Intermediate School District, in those states that have them were, until recently, creatures of another age. They were initially created to perform one or more of the following tasks for member districts:

1. To provide an official to examine and certify teachers.

2. To provide active supervision, including visitation of schools, to the thousands of rural schools found in most states.

3. To supply the state education agency with information on the condition of school buildings, expenditures, and programs of study and other data.

These traditional functions are fast diminishing in importance in a state school system. Circumstances are now different, requiring a new kind of middle-echelon unit of school administration.

For over a half century attempts have been made to restructure state systems of schools, and specifically to restructure the county or Intermediate Unit of school administration. In some states, particularly those with large metropolitan centers, these efforts have been relatively successful. In many other states, especially those in the Midwest, the office has withered on the vine.

Recent Interest in a Restructuring of the Second Echelon

There is considerable activity relating to the Intermediate Unit of school administration in a large number of states, resulting in a reconfiguration of the state school system and, in a majority of cases, a strengthening of the second-echelon unit, whatever it might be called.

In the far West, several states have been, or are at present, involved in strengthening the middle unit of school administration:

1. Washington in 1965 enacted permissive legislation creating 15 new regional, multi-county service areas. In January of this year, six units had been formed. Efforts were exerted in the past legislative session to mandate the creation of the remaining nine districts.

2. Oregon in 1963 enacted legislation which changed the functions of single county Intermediate Units from that which was essentially supervision and control to an emphasis upon a broad range of responsibilities and services to both local school districts and the state education agency.

3. The past session of the California legislature also greatly strengthened the county unit. Predictions are that sixteen to nineteen service units will be created in California in the very near future.

Midwestern states, including Nebraska, Wisconsin, Illinois, Michigan, Ohio, and Iowa, have also taken significant action in recent years or are involved in study and planning:

1. Nebraska in 1965 passed legislation creating 19 Educational Service Units. With the opening of school this fall, 17 units were in various degrees of development.

2. Wisconsin in 1965 abolished the county school office and created 19 new State Cooperative Educational Service Units.

3. Michigan in 1961 passed legislation requiring counties of less than 5,000 students to merge with another county. There are now less than 60 Intermediate Units and this number will, it is safe to say, be greatly reduced within the near future.

4. In the state of Iowa, the Sixty-first Iowa General Asesmbly in 1965 enacted permissive legislation allowing two or more adjacent counties to merge by concurrent action of county boards of education. To date, three mergers involving eight of the former 99 single county school systems have taken place. There is considerable merger discussion in nearly all parts of the state.

In the East, New York and Pennsylvania have experienced considerable legislative activity relating to the Intermediate Unit—in all cases, action which would result in a strengthening of this unit.

These recent developments are illustrative of the current widespread analysis of state school systems, and, more specifically, of the recognized potential of the regional educational service agency concept as a means of improving and strengthening the state school system and education at all levels.

The regional service concept is the biggest innovation in school government in this country today, although it is not universally recognized as a movement in all quarters.

THE MAJOR NEEDS OF PUBLIC ELEMENTARY AND SECONDARY EDUCATION AND THE NEED FOR A NEW TYPE OF EDUCATIONAL SERVICE AGENCY

In many if not in most of the states, the major needs in the provision of elementary and secondary education essentially relate to the inadequacies of local school districts. (The assumption is made here that this unit of school administration will continue to be the central figure in the provision of educational programs in most states.) These inadequacies stem in large part from one or more of the following characteristics of many local school districts:

1. Inadequate enrollment size.
2. Deficiencies in educational programs.
3. Failure to provide professional personnel.
4. Inadequate financial resources.

Nearly all of the characteristics are interrelated and it should be recognized that it is frequently difficult to determine the cause-and-effect relationships of the four characteristics. In the discussion following, these interrelationships are to be recognized.

Inadequate Enrollment Size

Many states have a large number of small school districts. There are relatively few districts in the several states which have enrollments in excess of 10,000 students, the figure identified as optimum through a comprehensive examination of the literature relating to adequate size of local school districts conducted as part of a recent Iowa study.[2]

In most states the additional reorganization of local school districts and the creation of larger administration units will surely be beneficial, but this will still not create in many situations school districts of adequate size to provide many programs and services characterizing an optimal educational program.

Deficiencies in Educational Programs

One of the factors relating to size of enrollment is the comprehensiveness of course offerings, an important characteristic of educational programs. It has been repeatedly shown and is generally recognized that there is a direct relationship between the size of enrollment of high schools and the comprehensiveness of course offerings.[3]

A second major deficiency of many educational programs of local school districts relates to matters of curriculum development. Many local school districts are unable, because of lack of human or financial resources, to develop their own curriculum objectives, units of study, and educational materials, and thus rely heavily upon textbooks for the direction and implementation of educational programs.

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[2] The Iowa Center for School Administration, College of Education, University of Iowa. *The Multi-County Regional Educational Service Agency in Iowa.* E. R. Stephens, Director (Iowa City, Iowa: The Iowa Center for Research on School Administration, September, 1967), p. 317.

[3] *Ibid.*, pp. 325–328.

A third major deficiency of the educational program of many elementary or secondary schools is the lack of provision of special services. The complexity of modern society and the resulting demands being placed on education are well recognized. The present-day educational program is complex, requiring the services of a large number of specialists and supportive programs and services. Yet relatively few elementary or secondary schools provide, or are able to provide, adequate guidance programs, elementary and secondary curriculum consultant services, library services, special teachers for art and remedial reading, health services, supervisors, most special education programs, and other needed programs and services.

A final major deficiency of the educational programs of many local school districts relates to the inadequacy of programs and services for exceptional children. Not all of the exceptional children are provided the most suitable educational opportunities. Many of the special classes for exceptional children which are administered by local school districts or county school systems in Iowa, for example, are those for the educable mentally retarded. In addition, only a limited number of specialists in most areas of special education are employed by the school districts of the state. Little is being done for the emotionally disturbed child, the child with physical or other handicapping conditions, or the child with specific learning disabilities, to cite but a few examples.

Failure to Provide Professional Personnel

No educational program can function effectively without the provision of a sufficient number of highly trained, competent professional personnel. A problem related to the size of enrollment of a school district and one which has a direct bearing on the quality of an educational program is that of the assignment of professional personnel to full-time teaching assignments in their major area of preparation. A number of studies have shown that the assignment of high school teachers to their major area of preparation is directly related to the size of the enrollment of the high school.[4] Typically, only the larger high schools are able to meet this objective.

Another aspect of the topic of professional personnel as it relates to possible shortcomings of local school districts is that of the professional development of personnel while in employment. Iowa school districts, for example, typically expend few resources for the continuous development or in-service training of their professional personnel. The continuing development of staff personnel should be one of the most vital concerns of local school districts. This is so because of the key role played by the professional staff in a quality educational program. Further, the salaries of professional members typically constitute approximately three-fourths or more of the total expenditures of local school districts. The need to protect and develop this investment in human resources is critical.

However, a survey by the Iowa Center for Research in School Administration, College of Education, University of Iowa, conducted in 1965, showed that the 138 responding school districts which made up 30.1 percent of the school districts in the state and enrolled 55.2 percent of the total state enrollment expended in direct in-service training in the 1964–65 school year an average of only $1.50 for each thousand dollars of total operating costs. This amounted to .71 cents per pupil annually, a pitifully small investment in manpower development.

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[4] *Ibid.*, pp. 310–312.

Moreover, this is an age of specialization—in business, in industry as well as in education. The day of the administrative generalist is past, and must be supplemented by highly trained, well qualified specialists in many fields, such as business administration, finance, new building construction, building operation and maintenance, quality control in both educational programming and in business management, and many others. If a state is serious about providing quality educational programs and services with an efficient and economical expenditure of the taxpayer's dollar, it must have the trained manpower to make this possible. Again, the day of the administrative generalist is over, and the day of the administrative specialists is here and now.

Inadequate Financial Resources

The financial ability of a local school district is clearly related to the quality of the educational program of the district, the special services the district can provide its students, personnel factors, and the provision of physical facilities to house the educational program. Indeed nearly all aspects of public education, elementary and secondary, are related to financial support.[5]

The ability of local school districts in many states to support many educational programs and services adequately has been severely restricted because of a preponderant dependence on the local property tax for the great majority of financial support.

In view of the concern of educators for securing adequate financial resources and the competition, not only within education but generally, for the tax dollar, the question of economy and best use of available resources is crucial. Recognition of the fact that over three-fourths of the local school districts in Iowa in the 1966–67 school year had fewer than 1,500 students, for example, raises serious questions concerning the economic and efficient functioning of these units in the provision of quality educational programs and services, many of which have been shown to require larger student populations.[6]

The Need For a New Type of Regional Educational Service Agency

The foregoing observations suggest that substantial educational deficiencies exist in the several states at the present time.

Some of these are attributable to the small enrollment size of the majority of local administrative units, making it impossible for these units to provide even basic programs and services. These districts must receive assistance in order to provide even a minimal educational program for their students. Efforts by these units, as presently structured, to increase the comprehensiveness of their programs—even if this could be achieved in the face of limitations of financial and human resources—would probe to be an inefficient and uneconomical use of the educational resources of many states.

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[5] *Ibid.*, pp. 303–306.

[6] *Ibid.*, p. 320.

It appears that the larger school districts in the several states also have service needs, although differing somewhat from those of small school districts, which are not most efficiently and effectively met on an individual district basis. Many of the larger districts still do not have sufficient enrollment to provide for many comprehensive educational programs. For example, the pupil enrollment base required for an efficient and economical data processing facility ranges from a minimum of 60,000 to 100,000 students, with optimum enrollments in excess of these figures. Also, many authorities in educational media speak in terms of a student base of approximately 40,000 as the optimum enrollment for a comprehensive educational media center.[7]

Recognizing the needs of local school districts to receive assistance from an outside agency, questions concerning the nature of this agency arise. In most states having a three-echelon structure, the most obvious agency to consider is the middle echelon unit. The middle unit of a three-echelon state system appears to be the most desirable agency to serve in this crucial role. This is true because of its place between the two other levels of school government making it close enough to local school districts to be aware of and responsive to local needs and yet broadly enough conceived to provide needed services. However, as presently structured in most states, the middle unit of school administration is wholly unable to fill this role.

If the middle unit in most states is to hold its place legitimately in the state system of public education, it must undergo pronounced changes in its structure and philosophy.

The necessary adaptations must begin with the creation of regional service units possessing sufficient enrollment and financial resources to be able to plan comprehensive programs and services in response to the needs of local school districts, large and small, within its constituency, and attract qualified personnel to implement these services at a high level of competency.

In view of the unequal educational opportunities in most states and the increasing demands placed on education by a changing society, the need for this adaptation is urgent.

CHARACTERISTICS OF STRONG REGIONAL EDUCATION SERVICE AGENCIES

Organizational patterns are a means to an end. Therefore, there probably is no "best" design, or "optimal" structure for a regional educational service agency. In that state school systems differ in certain fundamental respects and the circumstances in which educational programs are provided differ widely, variations in the organization, administration, and operation of regional educational service agencies will undoubtedly be necessary, indeed wholesome, both within individual states and between states.

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[7] *Ibid.*, pp. 387–406.

In spite of the need for variation and organizational flexibility, certain characteristics of strong regional educational service agencies can be identified. These relate to the following five broad topics:

1. Area or service base.
2. Programs and services.
3. Financial base.
4. Staffing patterns.
5. Legislative structure.

Following is a brief description of some of the more desirable characteristics of regional educational service agencies utilizing the foregoing topics.

The characteristics, or criteria, to be identified are based on one or both of the following:

1. A comprehensive review of the literature.
2. Visitations to outstanding Intermediate Units, or regional educational service agencies, in all parts of the nation.

A listing of the exemplary units which served as a basis for the characteristics of strong educational service units follows:

TABLE 1

Approximate Pupil Population and Total District Area in Square Miles for Sixteen Illustrative Intermediate Units

State	Agency	Approximate Pupil Population	Approximate Area In Square Miles
Washington	King (Seattle)	218,000	2,100[a]
Washington	Snohomish (Everett)	59,000	1,700[a]
Oregon	Multnomah (Portland)	110,000	400
Michigan	Wayne (Detroit)	335,000[b]	400
Michigan	Oakland (Pontiac)	220,000	900
[c] Michigan	Shiawasee (Near Flint)	18,000	1,000
Pennsylvania	Bucks (Doylestown)	82,000	1,000
Pennsylvania	Allegheney (Pittsburgh)	206,000[b]	900
[c] New York	Erie (Near Buffalo)	80,000	1,000[a]
Iowa	Polk (Des Moines)	63,000	600
Iowa	Scott-Muscatine (Davenport)	60,000	1,400
California	Contra-Costa (Near Oakland	150,000	900
[c] California	San Diego (San Diego)	290,000	4,300[a]
California	Almeda (Hayward)	240,000	700
California	Riverside (Riverside)	100,000	7,200[a]
[c] Texas	Harris (Houston)	350,000	5,000[a]

[a] Driving time to at least one attendance center exceeds one hour.

[b] Central city public school enrollment not included.

[c] Information on these four exemplary units was secured from two of the most recent publications on the Intermediate Unit of school administration: National Education Association, Department of Rural Education, *Regional Educational Services Agency Prototypes, Optional Statutory Arrangements and Suggestions For Implementation* (Washington: National Education Association, January, 1967), and Pennsylvania State Board of Education, *Intermediate Units in the United States: A Survey of Twelve Units* (*Harrisburg: State Board of Education of the Commonwealth of Pennsylvania, 1966*).

These units were analyzed through the use of a taxonomy which incorporated the following major criteria: organizational patterns, administration organization, programs and services, financial structure, staffing patterns, legislative structure, population characteristics, and local school district structure.[8]

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[8] *Ibid.*, pp. 162–164.

Area or Service Base

The criterion concerning the area to be included in an Intermediate Unit is illustrative of a broad guideline which has some degree of appropriateness in many situations. For example, most authorities seem to agree that a multi-county or regional base for the middle echelon agency is dictated by modern needs and conditions. Further, agreement is apparent that the boundaries of the Intermediate Unit should be coterminous with logical combinations of local school districts. It is generally recognized that there is no necessity for these boundaries to be related to the traditional political counties.

Generally stated, the size criterion is concerned with both total geographic area and population within the service district. Thus, area standards will usually state that the territory embraced by the intermediate district should be sufficient (1) to provide challenging opportunities for educational leadership, (2) to have well-prepared professional personnel to carry out a variety of needed special service programs, and (3) to provide a maximum offering of programs and services so that present and future needs can be met. Writers hasten to point out that the intermediate constituency should not cover an excessively large area in terms of geographic region and/or population. Accessibility to services is considered an important factor, and the unit must be small enough for adequate communication, coordination, and sensitivity to specific local needs.

An area sufficiently large in terms of resources and people is a requisite for quality and effectiveness of operation. However, "reasonable limits" and extenuating factors, such as a large geographic area or lack of population, cannot be overlooked. Adequacy of the total area, or proper provisions to overcome district structural limitations, must be met if the potential for operational efficiency is to be assumed.

Recent recommendations concerning pupil populations within a single intermediate district range from Michigan's 1962 minimal standards of 5,000 pupils to a suggested 125,000 in New York. In between these two extremes, 10,000 is the enrollment figure cited for Nebraska; 20,000 for Washington; 25,000 for Wisconsin, and a 1967 publication of the National Education Association cited a minimum enrollment base of 50,000.

The recently completed Iowa study recommends a minimum enrollment base of 30,000 for Iowa. This figure was deemed necessary for the economic and efficient provision of many of the programs and services that the proposed RESA Units for Iowa should provide. The rationale used in adopting the minimum enrollment size employed, in part, student incidence ratios or staffing ratios which are commonly accepted in the professional literature. It is to be emphasized that the enrollment figure of 30,000 is a minimum and was influenced by the demographic and geographic characteristics of the state.

Several qualifications regarding the intermediate district size usually accompany enrollment criterion. These qualifications include a maximum driving time of one hour from the intermediate office to any local district attendance center in the intermediate corporation, a maximum radius of 50 to 60 miles, and an optimum area based on a natural socio-economic community.

Programs and Services

Among the generally accepted standards for Intermediate Unit operation is the statement that "the basic orientation (responsibility) of the intermediate school district should be to the local districts in the intermediate district area." Acceptance of this criterion is tantamount to acceptance of the concept that the Intermediate Unit's primary emphasis should be service to local school districts. Stated in slightly different terms, some writers have noted that the Intermediate Unit's responsibility should be generally limited to those functions desired by local school districts.

Middle echelon programs and/or services do and of necessity should vary greatly from area to area and state to state. Flexibility is essential and all programs undertaken should be adapted to specific needs of the service area. Consequently, in each state and in specific areas of individual states, a determination and clarification of intermediate role and function is required.

In order to insure the flexibility which is a mark of an effective and responsive intermediate service operation, adjustable characteristics must be built into the system. Thus, both in structure and functions the effective Intermediate Unit must be sufficiently flexible to adapt to changing educational needs. As local districts become larger through reorganization, unification, or population increases, their service needs change. The intermediate agency should be flexible enough to discontinue services and add others which changing conditions necessitate.

Financial Base

If the service agency is to be an integral part of the state's total system of public education, its financial resources must be as definite and reliable as those for the other levels of school government.

District tax funds, state assistance, and local district reimbursements based on contractual agreements are usually listed as the three principal sources of support for the middle echelon educational service agency. Additional financing often comes from federal grants, other special grants, and occasional gifts or bequests.

The six most commonly recommended characteristics of desirable Intermediate Unit financing are (1) fiscal integrity, (2) fiscal independence, (3) independent tax levying powers, (4) a right to enter into contracts, (5) authority to incur bonded indebtedness, and (6) eligibility to receive state financial assistance based upon a state-aid-to-education formula.

Staffing Patterns

Isenberg is among the many writers who have noted that the services of the Intermediate Unit should be of a highly specialized nature.[9] The relationship of specialized intermediate services which are non-duplicating, complementary, and supplementary in character to staffing considerations is obvious. If the intermediate agency is to function as an integral part of the tri-level state educational team, it must preserve what has been described as its "institutional integrity."[10] Therefore, the quality of the intermediate staff becomes a key factor in the total operation. It is in the realm of "institutional integrity," then, that the necessity for quality personnel becomes particularly important.

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[9] National Education Association, Department of Rural Education, *Regional Educational Service Agency Prototypes* (Washington: National Education Association, January, 1967), p. 76.

Emerson reinforced this concept when he stated:

> Mature intermediate districts are constituted on a horizontal team basis to operate within their constituencies. The clinical team, the team of Ph.D. instructional specialists, the research team, the special education team, and the data processing team—all are staffed with highly specialized and highly qualified people, all are available to attack specialized tasks within their constituency. They are effective. Their services are in demand.[11]

It is therefore recognized that highly trained, specialized personnel operating within a discrete division of labor are required in an effective Intermediate Unit. In the more functional operations observed, highly trained practitioners were allowed to specialize in their specific area of preparation. By means of this discrete specialization of functions, a few regional educational service agencies are able to offer the very best in the way of sophisticated practice that technology and educational and para-educational disciplines have to offer. These units have been able to assemble specialized staffs of recognized quality who are in great demand by constituent local districts.

In attempts to secure a highly qualified professional staff, some Intermediate Units observed have fostered relationships with institutions of higher education. Typically, these relationships involve the employment of Intermediate Unit personnel by the institution of higher education on a part-time basis. This practice has a number of advantages for both parties. For the Intermediate Unit, the major advantages of such arrangements are that:

1. Personnel gain valuable teaching experience.
2. Personnel are provided with opportunities for contact with professional colleagues.
3. Personnel are stimulated toward professional growth.
4. Channels of communication are established for other types of coordination and cooperation.

Legislative Structure

Examination of the literature and observation of operating units show that, in reference to the middle echelon of school government, wide variations in legislative provisions exist in the several states.

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[10] *Ibid.*, p. 76.

[11] William J. Emerson, "The Intermediate School District—Middle Echelon of a Three-Echelon State System of Schools," a paper presented to the National Conference of Professors of Educational Administration, Arcata, California, August, 1965, p. 3.

Specific characteristics of the legislative structure under which the units function include the following:

1. Provision of flexibility required for functional and organizational changes.
2. Provision of legal authority for intermediate district reorganization on a regional basis.
3. Recognition of the regional service agency as a full partner in the state's educational system, particularly with regard to the financial support criteria identified previously which result in the revenue sources of the Intermediate Unit being as definite or reliable as those provided for the local and state echelons.
4. Provision of fiscal integrity and independence, including taxing powers.
5. Provision of a total approach to the systematic reorganization of all educational echelons.
6. Delegation of responsibility to intermediate boards for a degree of administrative and program and service self-determination. Especially critical are those legislative provisions which call for a popularly elected board and/or a policy-making board with the authority to appoint its chief executive officer.
7. Authority to incur bonded indebtedness and to hold title to real property.
8. Authority to develop cooperative programs and services with other educational, health, welfare, and social agencies in the public and private sectors.
9. The total area of the state is included in a regional service unit.

THE ROLE AND FUNCTION OF REGIONAL EDUCATIONAL SERVICE AGENCIES

The proposed role and function of regional educational service agencies are not easy to classify into discrete categories. For purposes of identifying the recommended major areas of concern of these units, the diverse program and services envisioned for these units are classified into three major categories; articulative functions, coordinative functions, and supplemental service functions.[12]

A brief description of each category and illustrative examples of the wide range of possible programs and services within each category follows.

Articulative Functions

The regional educational service agency as an arm of the state education agency and financed in part by state aid should perform a number of regulatory and ministerial functions for the state education agency. In this sense it localizes state school system operations and at the same time represents and interprets local educational needs at the state level. By performing these liaison functions, the regional educational service agency serves a vital role in the vertical and horizontal development and implementation of statewide educational planning and the administration of the state school system.

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[12] A large number of taxonomies are currently in use in classifying programs and services of Intermediate Units. The system used in this report, that is, the major categories—articulative, coordinative, and supplemental service functions—was perfected by Alvin E. Rhodes in his excellent monograph: "Better Education Through Effective Intermediate Units," Department of Rural Education, National Education Association, Washington, D C., 1963.

Coordinative Functions

The coordinative role of the regional educational service agency should be one of its major contributions to its constituent local school districts and to the state system of education. By coordinating the work of local school districts, it serves a vital leadership role in the improvement of education. This will usually be done by assisting local school districts in working together to solve their common problems and needs.

In addition, these coordinative functions help protect the local control and the independence of local school districts in that coordinative functions are provided among and for school districts rather than assumed by the regional educational service agency as being primary responsibility for them.

Supplementary Service Functions

The regional educational service agency, in its supplemental service role, complements the role of local school districts by providing direct educational services to them which they are unable to provide efficiently, effectively, or economically by themselves. Generally, these direct services are the type that local school districts are unable to provide because of limited student population, financial resources, personnel, or other factors.

The provision of these direct services also protects local control and, of great importance, helps to equalize and extend quality educational opportunities to all children, regardless of birthright or place of residency. It does not necessarily follow that the provision of these direct services to smaller, marginal school districts will perpetuate such districts and serve as an obstacle to the creation of administrative units of adequate size. Rather, there is sufficient empirical evidence that a strong regional educational service agency will promote, not retard, local school district reorganization, particularly when other complementary legal incentives for school district reorganization exist. This is true because regional services, by equalizing opportunities, remove one of the major obstacles to school district reorganization.

Illustrative Examples of Programs and Services

The potential programs and services of regional service units are many. For purposes of illustration, programs and services found in exemplary units have been arbitrarily classified into the following five categories: (1) Administrative and Staff Personnel; (2) Instructional; (3) Student Personnel; (4) Special Education; and (5) Research and Development.

(1) Administrative and Staff Personnel Programs and Services

A large number of administrative and staff personnel programs and services are required in the effective operation of an educational institution. Illustrative examples of potential programs and services of a RESA Unit include:

1. Administrative and business management consultant services.
2. In-service programs for members of boards of education and board secretaries and treasurers
3. School building site consultant services.
4. School district reorganization consultant services.
5. Data processing services.
6. Public information services.
7. Cooperative purchasing programs.
8. In-service programs for classroom teachers, specialists, supervisors, consultants, and administrators.
9. In-service programs for non-certificated personnel including transportation, food services, maintenance and custodial, secretarial and clerical, and other supportive personnel.
10. Substitute teacher services.
11. Services for the state education agency.
12. Coordinative activies with other health, welfare, and social agencies in the public and private sectors, and other governmental subdivisions.

(2) Instructional Programs and Services

It is in the area of instructional programs and services that regional educational service agencies can make their greatest contribution. This is its primary *raison d'etre*. Illustrative examples include:

1. Educational media center.
2. Elementary and secondary curriculum consultant services.
3. Remedial instruction programs and services.
4. Testing programs and services.
5. Health consultant programs and services.
6. Outdoor education programs.
7. Institutionalized children's educational programs.

(3) Student Personnel Programs and Services

Student personnel services have become a highly specialized area in recent years. The contributions of comprehensive student personnel services to an educational program are well recognized. Illustrative examples include:

Specific characteristics of the legislative structure under which the units function include the following:

1. Consultant services for student personnel programs.
2. In-service programs for guidance counselors and other professional personnel.
3. Other student personnel programs and services including graduate follow-up studies and drop-out studies.

(4) Special Education Programs and Services

As part of its commitment to assist constituent local school districts in providing the best educational program possible for all children, RESA Units have a major responsibility in the education of exceptional children. Illustrative examples include:

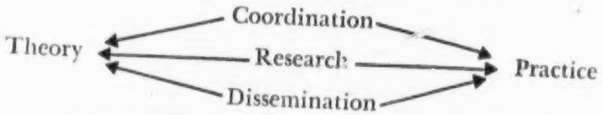
1. Programs for trainable retarded children.
2. Work-study programs.

3. Programs for emotionally disturbed children.
4. Psychological and psychiatric services.
5. Programs for physically handicapped children and children with special health problems
6. Programs for exceptional children of pre-school age.
7. Homebound instruction programs.
8. Programs for gifted children.
9. Programs for partially-sighted and blind children.
10. Programs for hard-of-hearing and deaf children.
11. Programs for speech handicapped children.
12. School social work services.
13. Programs for children with specific learning disabilities.
14. Providing coordinative and cooperative efforts for the many health, welfare, and social agencies in the public and private sectors.

(5) Research and Development Programs and Services

Educational research is a main form of investing in the educational process. Yet few school districts are able to engage in necessary research and development programs. While colleges and universities and professional organizations do contribute greatly to educational research, it is recognized that a definite lag exists in the implementation of the findings of this research.

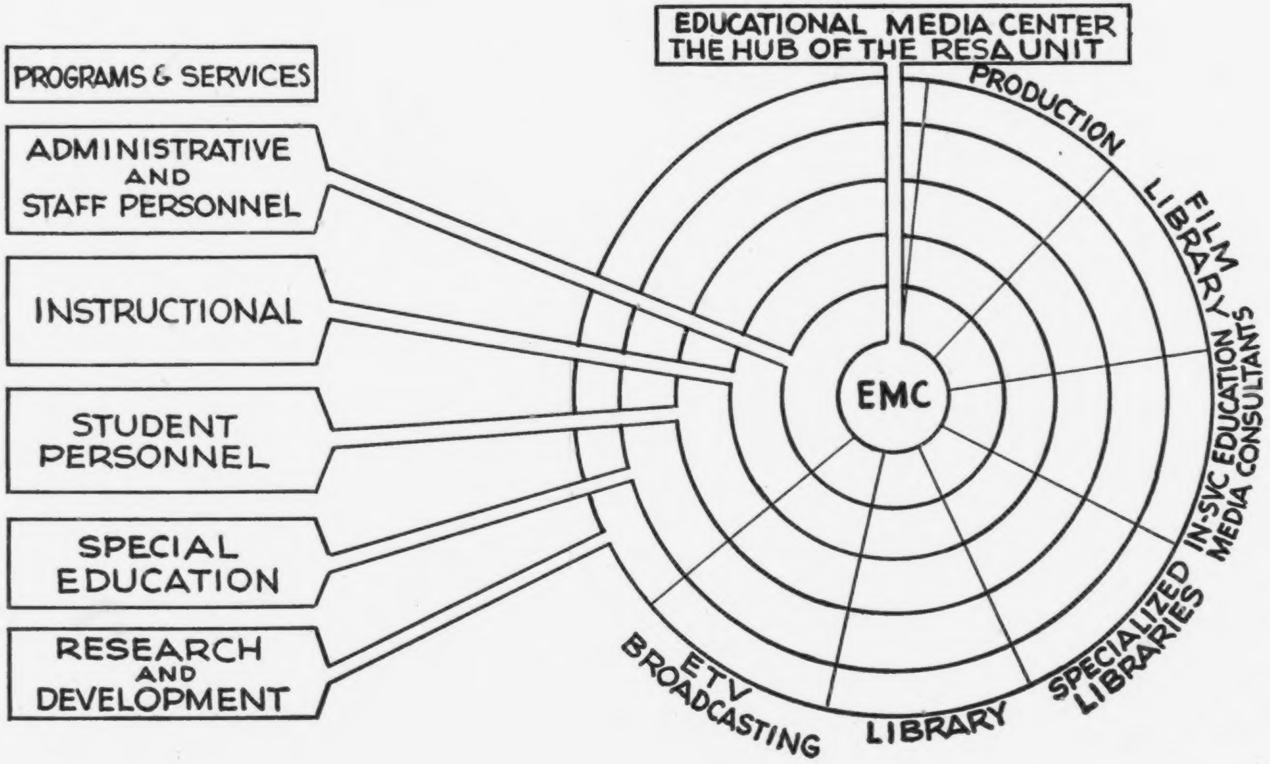
It is in the area of research and development that RESA Units can make a major contribution. The role of a RESA Unit is visualized as follows:



The agency is in a key position to develop theory into practice, to conduct action research in the examination of current educational practices, and to coordinate and disseminate the findings of research. This will prove to be a major contribution to education and exemplifies the regional educational service agency's vital role in the state system of education. Illustrative examples include:

1. Budget analysis and cost studies.
2. Long-range financial planning.
3. Community surveys.
4. Enrollment studies.
5. Pilot projects in various curricular areas.
6. Evaluation of instructional materials.
7. Development of local school district and regional norms for standardized tests.
8. Evaluation of various types of organizational and grouping practices.

The above listings of illustrative examples in each of the five categories should not be considered as complete. Rather, they are intended to show the nature and scope of potential programs and services which might result from careful study and analysis of a given area.


EDUCATIONAL MEDIA CENTER
THE HUB OF THE RESA UNIT
PROGRAMS & SERVICES
ADMINISTRATIVE AND STAFF PERSONNEL
INSTRUCTIONAL
STUDENT PERSONNEL
SPECIAL EDUCATION
RESEARCH AND DEVELOPMENT
EMC
PRODUCTION
FILM LIBRARY
IN-SVC EDUCATION
MEDIA CONSULTANTS
SPECIALIZED LIBRARIES
LIBRARY
ETV BROADCASTING

In summary, the major thrusts of the emerging RESA Unit appear to be in the following areas:

1. The provision of consultant services of a wide variety to constituent local school districts.

2. The provision of in-service programs for professional and non-certificated personnel of local school districts.

3. The provision of special education programs and services.

4. The provision of research and development programs and services.

The physical and operational hub of the emerging RESA Unit will be a comprehensive educational media center. The educational media center will provide a variety of services to constituent local districts as shown below:

It will also serve an important role for the staff of the RESA Unit. Many of the specialists of the service agency will utilize extensively the resources of the media center in the provision of programs and services to constituent local school districts.

MAJOR BENEFITS RESULTING FROM THE ESTABLISHMENT OF A STATEWIDE NETWORK OF REGIONAL EDUCATIONAL SERVICE AGENCIES

If a network of regional educational service agencies is developed in most states and if these units are allowed to function without basic structural deficiencies, several major benefits to state systems of education will result. These new units of school government can:

1. Protect and promote local control and local determination in public education.

2. Equalize and extend educational opportunities.

3. Assure economical and efficient operation of many educational programs.

4. Improve the quality of many educational programs.

5. Provide a needed change agent in education.

6. Promote the restructuring of school government consistent with developments in the public and private sectors.

7. Improve the coordination of local, regional, and statewide educational planning.

It is not the purpose of this position paper to discuss each of the above major benefits in great detail. Space would not permit this. Some of these, it is to be noted, were implicit in the previous discussions of the needs of local school districts and the characteristics of strong regional educational service agencies.

Before proceeding with this brief discussion of major benefits, it is well to recall at this point that the one test against which any plan, arrangement, or reconfiguration of school government must ultimately be judged is simply —"What does it do for the child in the classroom?"

Protect and Promote Local Control and Local Determination in Public Education

Local control and local determination are important and cherished features of the American public school system. Many observers hold that these characteristics, although at present undergoing profound reassessment and redefinition, indeed profound change, are still of such import that they need to be guarded and preserved at all costs. Even should one disagree with this position, the political realities are such that local control of education, however defined and evaluated, will continue to be a critical concern of many.

The regional educational service agency is basically a local agency. While it performs certain ministerial and regulatory duties for the state education agency, it aids in adapting these to local needs and local circumstances.

Further, the regional educational service agency, by equalizing and extending educational opportunities through its programs and services for constituent local school districts, makes these districts stronger units while retaining maximum policy determination at the local level.

Equalize and Extend Educational Opportunities

A second major benefit to be derived from the establishment of a strong network of regional educational service agencies is that such a network can help to equalize and extend educational opportunities for all children.

The provision of programs and services to constituent local school districts which, because of limited student population, limited financial resources, and/or lack of specialized professional personnel, are unable to provide an adequate program, will serve to equalize educational opportunity for all children regardless of birthright. The "accident of birth" is perhaps more basic in education than in any other single area of human activity. It must be removed as a serious problem in education.

Further, the shortcomings of instructional programs in many schools are recognized. The regional educational service agency through the provision of supplementary programs and services can help to extend the educational programs of local school districts. Related to this is the recognition that not all children benefit most by the same educational program. Some children need more instructional attention than others in grades K–12. In addition, many school children require special types of instructional programs in order to receive "an equal educational opportunity." The regional educational service agency through its supplemental and consultative programs and services can help local school districts to provide the "best" educational program for each child.

Assure Economical and Efficient Operation of Many Educational Programs

A third major benefit which can be realized through the establishment of multi-county regional educational service agencies is the more economical and efficient operation of many educational programs and services on a larger scale. Examples of the types of programs which are best suited to the regional approach are many administrative and business management functions, such as joint purchasing and data processing; in-service programs for professional and non-certificated personnel; and many programs for exceptional children. The profession, in view of the severe competition for financial resources, can no longer ignore "economics of scale" which have application for education. Nor can the profession fail to implement procedures which promote the more efficient utilization of human and financial resources in face of demands for more comprehensive educational programs.

Improve the Quality of Many Educational Programs

A fourth major benefit which can result from the establishment of regional educational service agencies is the improvement of the quality of many educational programs. The regional agency, operating on a broader base, serving a larger student population, and having greater financial assets will be able to attract highly qualified personnel to serve in consultative as well as functional roles in assisting constituent local school districts, both large and small, to improve the quality of their educational programs through the provision of needed programs and services to both.

Provide a Needed Change Agent in Education

Another major benefit which can result from the establishment of regional educational service agencies relates to organizational theory. Most state school systems are in need of a unit which is free from the inhibiting restrictions which accompany an organization with narrow focus, free from the inadequacies of finance, personnel, and time, and free from the encumbrances of custom which impede innovative effort.

So, too, is education in desperate need of a structured, systematic vehicle to implement change. This will require, among other things, a planned means whereby an organizational unit in the state system of education is in a strategic position and is capable of assessing and evaluating developments in all sectors of society, and, at the same time, is flexible enough to adapt its program to needed change. Local school district officials, by the very nature of the organization they administer, must devote a disproportionate amount of time and energy to "maintaining the organization." The state education agency tends to be similarly restricted. It appears that the regional educational service agency has the necessary organizational features to play a significant role in promoting change in a state system of education.

The limited research on innovation in education which has been conducted has not yet established all of the conditions necessary for the stimulation of change. More is known, however, about the elements in an educational institution which tend to inhibit change. These elements include traditionalism, accepting the *status quo*, educational bureaucracy, insufficient financial resources, insufficient number and quality of personnel, insufficient time, and community apathy or resistance.

It cannot be guaranteed that the regional educational service agency can overcome these elements and serve successfully as a needed change agent. However, it appears that the structural characteristics of these units can do much to minimize many of the elements which are known to inhibit change.

Promote the Restructuring of School Government Consistent With Developments in the Public and Private Sectors

Educational concerns do not exist in a vacuum. Thus, they must reflect developments in other areas of human activity. Since education is dependent upon public support and understanding and since it serves a common clientele with other public and private agencies, it is important that the restructuring of school government be consistent with discernible trends in the public and private sectors. Further, this is true because many problems of education are not confined to the classroom, the local school district, or even the region. They are affected by socio-economic and political developments in the state and nation as well.

A number of discernible trends in the public and private sectors are apparent which must be reflected in the reconfiguration of school government. Several of the more significant trends which relate to the restructuring of the middle echelon unit of school government in Iowa and in many other states are:

1. The area function concept which approaches economic planning and development and the solution of socio-economic problems on a regional basis. In Iowa, economists have developed the implementation of this concept around the state's major cities, advocating that economic planning and development be initiated around these core cities.
2. Sociologists in many states are similarly advocating that the provision of many social and health services be carried out utilizing the same center-city concept. A number of Iowa's governmental, social, health, and mental health agencies have redesigned their state organizations, incorporating one or more features of the center-city concept. There is evidence of considerable public support for these developments.
3. In school government, the newly created area community college and area vocational-technical districts give recognition to the center-city concept. Further, the Iowa State Board of Public Instruction has also utilized area education districts in the development and implementation of state planning for Titles II, III, and VI of the Elementary and Secondary Act of 1965.
4. Iowa, which has been considered largely a rural state, will have by 1980, according to nearly all population projections, over 50 percent of its people concentrated in approximately ten standard metropolitan statistical areas. This trend exists in many states.
5. In the broader spectrum of government, political scientists and public administrators have for many years advocated the broader approach to the provision of public services and the solution of governmental problems. This has taken a number of forms, among which are numerous proposals for the reorganization of county government to encompass a broader area in order to provide services more efficiently, effectively, and economically. Consistent with this, Iowa now has permissive legislation for the creation of regional hospitals and penal institutions.
6. A number of federal programs, both within and outside of the Office of Education, encourage, and in many cases prescribe, that programs embrace the "area or regional concept." Examples of the latter include many programs for conservation, flood control, mental health, highway improvement, metropolitan planning, and urban and rural planning.
7. Interest in intergovernmental relations on the federal-state, interstate, state-local, and inter-local levels is increasing. Legislation in many states,

including Iowa, permits, and in fact encourages joint planning by governmental subdivisions, joint exercise of governmental powers, and joint employment of personnel. This trend is based in large part on the recognition that planning and implementation of programs are in many cases directed toward identical services, purposes, and achievements, and that cooperation and coordination among and between governmental agencies is essential.

8. The increasing need for specialization is evident in many areas of society. Similarly increased specialization on the part of personnel in education is required, due to the growing complexity of educational tasks.

Improve the Coordination of Local, Regional, and Statewide Educational Planning

A final major benefit resulting from the establishment of regional educational service agencies is the improved coordination of educational planning on the local, regional, and statewide levels.

On the local plane, the regional agency can assist local school districts, through the provision of consultative and supportive services, in long-range planning and program development with the assurance that needed programs and services will be available on a consistent and continuous basis.

Regional educational planning can be facilitated through research and development, planning, and coordinative efforts by the regional educational service agency for the local school districts within its constituency. Further, the regional unit is in an ideal position to bring about cooperation and coordination with other governmental subdivisions and quasi-governmental agencies within a region principally because it is less restricted by existing political boundaries or other "artificial" constraints.

Regional educational service agencies will greatly assist statewide educational planning in that these units will provide the state educational agency with a small number of "local" agencies which can serve in a communicative capacity to the state agency because of their closeness to local school districts and their resulting awareness of need. Further, these agencies can serve in a coordinative capacity for the implementation of long-range statewide planning because of their consultative and supplementary service role to local school districts.

ALTERNATIVE APPROACHES FOR THE IMPROVEMENT OF EDUCATION

It is to be recognized that there are a number of other alternatives for the improvement of a state system of public education which are available to decision-makers in the several states. The major alternatives appear to be the following:

1. To encourage the formation of larger local school districts.
2. To encourage cooperative agreements between local administrative units.
3. To decentralize the state education agency and create regional administrative and service branches throughout the state.

4. To assign the responsibility for providing services to local school districts to post high school institutions.

Each of these approaches is currently in practice to some degree in a number of states. Each, to be certain, has a number of arguments in its favor. However, each has a number of basic philosophical or structural disadvantages which outweigh the advantages of their use individually or collectively in most states.

Encourage the Development of Larger School Districts

Most states have made great strides in the past in reducing the number of small, marginal high school districts, and, in general, improving the legal structure of local school district organization. Past efforts in this regard are to be lauded. Further, the continuous efforts of state education agencies and other organizations and individuals to create more adequate local administrative units are to be supported by all educational interests.

However, the creation of local school districts of the size required to provide a quality educational program faces serious obstacles. The feasibility of establishing administrative units with minimum enrollments of 10,000, or more students is questionable. The geographic and demographic characteristics of many states make such efforts questionable from both a practical and philosophical standpoint. Even if this were possible, there would still exist a need for a service agency to provide a number of programs and services to local units which could not provide such services as economically, efficiently, or effectively as could a service agency.

Encourage Cooperation Between Local Units

Another major alternative available to decision-makers is the encouragement of cooperative agreements between local school districts. This approach, which could be promoted through legislature, financial, or other incentives, could take one of two major forms, or a combination of both. The smaller districts in a state could be encouraged to cooperate with other small districts for the provision of needed educational programs, or smaller units could enter into cooperative agreements with neighboring larger districts.

This approach is at best a stop-gap measure toward the regional concept. It is vulnerable to changes in personnel or changes in the commitment of administrative and policy-making bodies in the units involved. Such agreements would typically be subject to annual negotiation or would lack other vital features necessary to long-range educational planning.

Such cooperative activities would in many cases require agreements between many school districts in order to secure the necessary enrollment or financial base. The necessity for coordinative efforts to initiate, maintain, and improve agreements of this temporary nature appears to be a serious obstacle.

Decentralize the State Education Agency

A third major alternative to the provision of programs and services to local school districts is the decentralization of the state educational agency by creating regional administrative and service branches in various geographic regions of a state.

This plan would tend to create an environment in which the ministerial and regulatory functions of such service agencies would be likely to dominate. To be certain, these functions are crucial in the administration of a state system of education. However, in the unit designed to provide services to local school districts, these functions should be secondary; if allowed to dominate, they would tend to lessen the effectiveness of the service role, and, in addition, tend to weaken the important educational considerations of local determination and local control.

Further, this plan would require a large number of professional personnel in the state agency, a seemingly undesirable and unnecessary centralization of staff.

Also, the greatly increased involvement of the state agency in the service function would lessen its ability to continue to perform the important role of educational leadership, coordination, and long-range planning so vital to a state system of education.

Provide Services Through Post High School Institutions

A final major alternative to the provision of needed educational programs and services to local school districts is to provide these services through post high school educational institutions such as area community colleges, area vocational-technical schools, public four-year colleges and universities, or some combination of both.

Although these agencies do have important roles to perform for public elementary and secondary education in most states, these are essentially consultative in nature. The primary role of post high school institutions is the provision of educational programs for the post high school age population of a state. For them to dissipate their human and financial resources and undertake still another vital role would tend to weaken their existing commitments. Further, it is questionable whether or not personnel and policy-making boards can reasonably be expected to be competent in such diverse planes as would be required.

SUMMARY

The regional educational service agency has a bright future principally for these reasons:

1. It is the most feasible approach, at this point in history and in the foreseeable future, of overcoming existing inadequacies and of providing equal educational opportunities for all, regardless of birthright, and of protecting local control and local determination, important features of the American public school system.

2. It is an improvement in the structure of a state system of education, a necessary prerequisite to the implementation of many needed innovations in public elementary and secondary education.

3. It permits greater efficiency and economy in the provision of many educational programs and services.

4. It is consistent and compatible with a number of major discernible trends in both the public and private sectors toward the area approach, and developments in intergovernmental relations.

5. It is supported by recent legislation or interest in many states in all parts of the country.

6. It has the support of a number of professional organizations and agencies. Among these is the American Association of School Administrators which in 1967 adopted a resolution supporting the Intermediate Unit—the strongest position which this organization has ever taken in its support.

The regional service agency in its newly emerging form is a product of efforts to meet new needs in education. Its benefits have been demonstrated in many parts of the United States.

If the RESA Unit is to meet its potential it must be developed, or restructured where it now exists, around educational purposes rather than around political logic and/or expediency. As indicated previously, the RESA concept, although not universally recognized, is one of the biggest movements in education in this country today. Its stay in court has ended. All that remains now is for the profession, the public, and state legislatures to recognize its potential and support its development.

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CHAPTER 13

EMERGING URBAN PROBLEMS AND THEIR SIGNIFICANCE FOR SCHOOL DISTRICT ORGANIZATION IN THE GREAT PLAINS STATES

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INTRODUCTION

Unless educational or other major social services are organized and provided in a manner congruent with the patterns according to which people live and the problems and goals of the populations they serve, education cannot be carried out with the effectiveness, efficiency, and economy needed to maintain the viability of a complex, industrial society. In a highly urbanized nation such as the United States, the areal unit in which large numbers of persons interact with and are interdependent on one another is the metropolitan area.[1] No analysis or set of recommendations concerning the organization or structure of education in the Great Plains states, therefore, can be adequate if it fails to take into account the major problems characteristic of the metropolitan area and the way in which metropolitan growth has occurred or is likely to occur in a modern, urban society.

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[1] "The general concept of a metropolitan area," according to the Bureau of the Census, "is one of an integrated economic and social unit with a recognized large population nucleus. Each SMSA [Standard Metropolitan Statistical Area] contains at least one central city with at least 50,000 inhabitants or more. The SMSA includes the county of such a central city and adjacent counties that are found to be metropolitan in character and economically and socially integrated with the county of the central city. The largest city is considered the nucleus and usually gives the name to the area" (U.S. Bureau of the Census, *Metropolitan Area Statistics*; reprinted from *Statistical Abstract of the United States, 1967* [Washington: U.S. Government Printing Office, 1967], p. 897). "Integrated" economic and social units, in turn, are identified with reference to specific criteria related to work and commuting patterns as well as to the exchange of productive goods and services between communities.

Since emerging metropolitan patterns in the Great Plains Region are similar in many important respects to those encountered in metropolitan areas throughout the United States, it is useful to describe important metropolitan developments which have particular relevance for education before considering specific ways in which these problems may be exemplified in Iowa, Missouri, Nebraska, and South Dakota. Educators have not always viewed major social problems as having any real significance for the organization and operation of the educational system; but as education has become the central function in our society, it has become obvious—for reasons which we hope to make clear in this paper—that the manner in which educational services are provided can no longer be viewed apart from the social and demographic context in which the schools function. Among these problems are the proliferation of governments incapable of dealing with serious issues, socioeconomic stratification and racial segregation, fragmentation among socializing and educative institutions, and the weakening of social and political consensus which has occurred as a result of the way urban society has evolved in the United States. Each of these developments, in turn, has great implications for the subsequent growth of metropolitan society as well as for the way educational services must be organized to maintain the functioning of such a society in accordance with the ideals and aspirations which have guided its development in the past and will affect the welfare and happiness of its inhabitants in the future.

STAGES IN METROPOLITAN DEVELOPMENT

The evolution of metropolitan society in the United States can be characterized in terms of the following five distinct stages[2] through which our metropolitan areas already have passed or are now passing:

1. *Early Development.* The development of the metropolitan area usually can be traced back to the founding of a small trading town which grew to be a city large enough to possess a distinct geographic and social structure within which one could distinguish between relatively well-to-do or "upper crust" sections and areas on the "wrong side of the tracks" in which lived working-class families and other low-income groups.
2. *The Structured City.* As growth in commerce, industrialization, and the division of labor caused the appearance of still more structure to govern and facilitate the interactions among the people of the small city, distinct sections of the city could be identified in which various social and economic functions such as factory production, transportation networks and terminals, large-scale retailing, outdoor recreation, commercial interchange, and artistic activities were centered. Large numbers of people typically are attracted to the city during this stage, and many cities grow to have populations of several hundred thousand or more. Choice residential areas, meanwhile, tend to be located at the outer edge of

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[2] For a more complete description of these stages, see Robert J. Havighurst, *Education in Metropolitan Areas* (Boston: Allyn & Bacon, 1966), pp. 33–47.

the city, while some of the working-class neighborhoods near the factories and early market centers deteriorate and become recognizable as urban slum areas.

3. *Differentiation Between Central City and Suburbs.* The main characteristic of this stage is the appearance and settlement of politically-distinct suburban areas. At first these suburban areas tend to be relatively exclusive residential areas occupied particularly by upper-middle class families and located along transportation lines that lead into the city. As middle- and upper-income families move into the suburbs from the city or from elsewhere in the region or nation and as low-income families continue to move into the central city, the proportion of the low-income residents in the city and the size of its slum areas continue to increase. Parts of the city become obsolescent and government officials find it increasingly difficult to finance the public services needed by the residents of the city.
4. *The Metropolitan Complex.* Particularly after World War II, the suburbs began to grow very rapidly. Industrial decentralization, too, proceeded very rapidly, accelerating the decline in employment opportunities and financial capacity in the city and leading to a greater differentiation in economic functions and types of communities characteristic of the suburbs. At the same time many low-income citizens, particularly Negroes and members of other minority groups from the South as well as the rural parts of the border states and the Southwest, were moving into the inner core sections of the central city, even though mechanization, decentralization, and discrimination were making it increasingly difficult to obtain unskilled or semi-skilled work there and the building of highways as well as the clearance of deteriorated residences were making it more difficult to obtain adequate housing.

The general pattern of this differential growth of suburbs and central city which has impoverished the central city thus involves a series of events which has been characteristic of nearly all the larger metropolitan areas and can now be seen taking place in many of the smaller metropolitan areas as well:

> . . . both whites and non-whites are leaving the very core of the central city; the white population is failing to maintain its numbers in the middle sections of the city while the non-white residents are accumulating there very rapidly; the outer zone of the central city is adding to its white population at a much reduced rate; the suburban ring is growing at an extremely fast pace, especially that part of the ring which is adjacent to the central city; in absolute numbers almost all of the total increase in the ring is the result of additions to the white population . . . these trends could be seen developing at least twenty to thirty years ago and most of them are accentuated during the 'fifties.[8]

The more differentiated structure of the metropolitan area which develops in this stage brings with it a host of problems for both central city and suburbs. Many of the suburbs, for example, do not have the financial resources to build public facilities or provide public services as quickly as desired by their rapidly-growing populations, while others have many residents who must live almost beyond their means if they are to enjoy the advantages of the suburban environment. Many of the established suburbs, moreover, face the need to rebuild older sections which have begun to deteriorate; and the physical unity of the metropolitan area means that the increase in air and water pollution, noise, traffic congestion, and shoddy commercialization along major transportation arteries are equally if not more the problems of the suburb and urban fringe areas of the central city. It is likely that the volume of out-migration from many of these suburbs will grow larger, unless they develop urban renewal programs that hold people and attract new middle-class residents.

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[8] Leo F. Schnore, *The Urban Scene: Human Ecology and Demography* (New York: The Free Press, 1965), p. 257.

Thus the fourth stage of metropolitan evolution has produced a metropolitan complex in which the earlier simple distinctions between central city and suburbs are losing their validity. As problems increased during this stage, the movement of urban renewal gathered momentum in preparation for the next stage, in which it must become a predominant concern throughout the metropolitan area.

5. *Urban Renewal Stage.* Although most of the larger metropolitan areas are now in stage four, some are in stages two and three, and some small cities are becoming metropolitan areas. At present, therefore, all stages of metropolitan development are visible. The newer metropolitan areas are evolving more rapidly than the older ones, and given changes in transportation and the pace of urbanization and industrialization, some will combine stages three and four. Thus although it is predominantly the oldest and largest metropolitan areas in which the central city and the sections which surround it are on the verge of a major convulsion, urban renewal—whether as a corrective or preventive measure to assure the future viability of the social and political structure in our urban society—is relevant for metropolitan areas of all sizes and all stages of development. The concept of urban renewal, in turn, is seen as increasingly involving an emphasis on social renewal and on the development of human resources in the metropolitan area. Since the educational system is one of the foremost institutions responsible for the development of human resources in modern society, this emphasis on urban social renewal is as salient in its implications for the organization of educational services in a metropolitan area such as Dubuque, Iowa, with a 1960 population of 80,048, as it is in the New York Metropolitan Area with a population of 10,694,633.

METROPOLITAN DEVELOPMENT IN THE GREAT PLAINS STATES

By 1960, 45.4 percent of the population of the four Great Plains States of Iowa, Missouri, Nebraska, and South Dakota lived within the thirteen urbanized areas which are located wholly or partly within these states and which met Census Bureau criteria for official designation as a Standard Metropolitan Statistical Area (SMSA). Although this figure represented a smaller proportion of the population living in metropolitan areas than was true for the United States as a whole,[4] it had grown from 35.9 percent in 1950 and probably will reach at least 50 percent in 1970 and then continue to increase in the future.[5]

The thirteen metropolitan areas which include the centers of population in these four states are in various stages of development. Kansas City and St. Louis, the two which are among the twenty-five largest metropolitan areas in the United States and definitely are well into the latter stages of metropolitan development, had 54.3 and 63.6 percent of their respective populations living outside their central city areas in 1960. None of the remaining eleven typified the pattern in the nation's oldest and largest metropolitan area which experienced extremely rapid suburban growth after 1940 or 1950 and by 1960 had one-half or more of its inhabitants residing outside the central city sections. The metropolitan areas of the Great Plains tend, instead, to be relatively small and to have experienced only moderate increases in their central city and suburban areas in the past few decades. Eight of the thirteen, for example, rank in the bottom half in size of population among metropolitan areas in the United States, and in many of them, as shown in Table 1, either the central city appears to be still growing more rapidly than the suburban areas or the suburban areas actually have lost population over the last forty or fifty years. What these figures indicate, in general, is that most of the population centers in the Great Plains tend to be small enough to accommodate substantial additions in the population concentrated in their central city areas and that the increase in urban population which is a consequence of urbanization is coalescing around population centers which are fairly old, but which are not particularly dense to begin with and are located within larger areas in which population has been distributed relatively evenly; among them, probably all but Sioux City, Iowa, and St. Joseph, Missouri, now have at least one-fifth of their respective populations residing outside the central cities. As compared with many metropolitan areas in the western states that tend to have more of their residents concentrated in central cities which until a few decades ago hardly were considered cities at all, the metropolitan areas in the Great Plains thus show a moderate-to-high degree of structural complexity and differentiation. The conclusions suggested by the data shown in Table 1, therefore, are that the SMSA's of the Great Plains states either are already confronted (e.g., St. Louis, Kansas City, Omaha) or will tend to be confronted with typical problems and imperatives (see next section) associated with metropolitan development elsewhere in the United States, and that these problems are likely to intensify in the future as the central cities in the Great Plains states become too dense for many tastes and as population growth accelerates more rapidly in suburban areas. Implications of these differences between the larger and smaller metropolitan areas in the Great Plains states will be discussed in the concluding sections of this paper.

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[4] The 1960 population of the 231 areas which were designated as SMA's in 1967 represented 65.9 percent of the total population of the United States at the time of the last decennial census.

[5] As noted by Ellis G. Hanson on p. 18 of his paper on *People—Places—Perspectives: The Great Plains States* (Lincoln, Nebraska: The Great Plains School District Organization Project, February 8, 1968), the total population outside the SMSA's in Iowa, Missouri, and Nebraska decreased between 1950 and 1960, while it increased by only 2.1 percent in South Dakota. It is safe to conclude, therefore, that nearly all the population growth in these states is occurring in their SMSA's.

TABLE 1

Size and Distribution of Populations in Metropolitan Areas Wholly or Partly in Iowa, Missouri, Nebraska, and South Dakota, 1960.

SMSA	Total Metropolitan Population	Rank in Size Among All Metropolitan Areas (212) in 1960	Thousands of Persons			Amount of Change in Thousands of Persons			Percent of Metropolitan Population		
				In Central City	Outside Central City		In Central City	Outside Central City		In Central City	Outside Central City
St. Louis Mo.-Ill.	2,104,669	9	1960	750	1,310	1950–1960	107	448	1960	36.4	63.6
			1950	857	862	1940–1950	41	214	1950	49.8	50.2
			1940	816	648	1920–1940	43	255	1940	55.7	44.3
			1930	822	565	1900–1920	198	142	1930	59.3	40.7
			1920	773	394				1920	66.3	33.7
			1910	687	345				1910	66.6	33.4
			1900	575	252				1900	69.6	30.4
Kansas City, Mo.–Kans.	1,092,545	22	1960	476	564	1950–1960	19	206	1960	45.7	54.3
			1950	457	358	1940–1950	57	70	1950	56.1	43.9
			1940	399	287	1920–1940	75	83	1940	58.1	41.9
			1930	400	266	1900–1920	161	63	1930	60.1	39.9
			1920	324	204				1920	61.3	38.7
			1910	248	174				1910	58.8	41.2
			1900	164	142				1900	53.6	46.4
Omaha, Nebr.-Iowa	457,873	56	1960	302	156	1950–1960	50	41	1960	65.9	34.1
			1950	251	115	1940–1950	27	14	1950	68.5	31.5
			1940	224	101	1920–1940	32	17	1940	68.8	31.2
			1930	214	99	1900–1920	89	–18	1930	68.3	31.7
									1920	69.6	30.4
									1910	64.3	35.7
									1900	50.3	49.7

TABLE 1 (Continued)

Size and Distribution of Populations in Metropolitan Areas Wholly or Partly in Iowa, Missouri, Nebraska, and South Dakota, 1960.

SMSA	Total Metropolitan Population	Rank in Size Among All Metropolitan Areas (212) in 1960	Thousands of Persons			Amount of Change in Thousands of Persons			Percent of Metropolitan Population		
				In Central City	Outside Central City		In Central City	Outside Central City		In Central City	Outside Central City
Davenport-Rock Is.-Moline, Iowa-Ill.	319,375	93	1960	184	87	1950–1960	23	13	1960	68.0	32.0
			1950	161	74	1940–1950	18	19	1950	68.6	31.4
			1940	143	55	1920–1940	20	11	1940	72.4	27.6
			1930	131	45	1900–1920	21	9	1930	74.6	25.4
			1920	123	44				1920	73.8	26.2
			1910	92	39				1910	70.2	29.8
			1900	72	35				1900	67.4	32.6
Des Moines, Iowa	266,315	95	1960	209	57	1950–1960	31	9	1960	78.5	21.5
			1950	178	48	1940–1950	18	12	1950	78.7	21.3
			1940	160	36	1920–1940	33	8	1940	81.6	18.4
			1930	143	30	1900–1920	64	7	1930	82.5	17.5
			1920	126	28				1920	82.1	17.9
			1910	86	24				1910	78.2	21.8
			1900	62	20				1900	75.2	24.8
Lincoln, Nebraska	155,272	146	1960	129	27	1950–1960	30	6	1960	82.8	17.2
			1950	99	21	1940–1950	17	2	1950	82.6	17.4
			1940	82	19	1920–1940	27	–12	1940	81.5	18.5
			1930	76	24	1900–1920	15	6	1930	75.7	24.3
			1920	55	31				1920	64.0	36.0
			1910	44	30				1910	59.6	40.4
			1900	40	25				1900	62.0	38.0
Cedar Rapids, Iowa	136,899	161	1960	92	45	1950–1960	20	13	1960	67.2	32.8
			1950	72	32	1940–1950	10	5	1950	69.3	30.7
			1940	62	27	1920–1940	17	–1	1940	69.7	30.3
			1930	56	26	1900–1920	20	–1	1930	68.1	31.9
			1920	46	28				1920	61.6	36.4
			1910	33	28				1910	54.0	46.0
			1900	26	30				1900	46.3	53.7

TABLE 1 (Continued)

Size and Distribution of Populations in Metropolitan Areas Wholly or Partly in Iowa, Missouri, Nebraska, and South Dakota, 1960.

SMSA	Total Metropolitan Population	Rank in Size Among All Metropolitan Areas (212) in 1960	Thousands of Persons			Amount of Change in Thousands of Persons			Percent of Metropolitan Population		
				In Central City	Outside Central City		In Central City	Outside Central City		In Central City	Outside Central City
Springfield, Mo.	126.276	170	1960	96	30	1950–1960	27	–8	1960	75.9	24.1
			1950	67	38	1940–1950	5	9	1950	63.7	36.3
			1940	61	29	1920–1940	22		1940	67.6	32.4
			1930	58	25	1900–1920	16		1930	69.4	30.6
			1920	40	29				1920	57.7	42.3
			1910	35	29				1910	55.1	44.9
			1900	23	29				1900	44.1	55.9
Waterloo, Iowa	122,482	172	1960	72	51	1950–1960	7	15	1960	58.6	41.4
			1950	65	35	1940–1950	13	7	1950	64.9	35.1
			1940	52	28	1920–1940	16	8	1940	64.7	35.3
			1930	46	23	1900–1920	24	1	1930	66.8	33.2
			1920	36	20				1920	64.0	36.0
			1910	27	18				1910	59.5	40.5
			1900	13	20				1900	38.8	61.2
Sioux City, Iowa-Nebr.	120,017	184	1960	89	19	1950–1960	5	–1	1960	82.7	17.3
			1950	84	20	1940–1950	2	–1	1950	80.8	19.2
			1940	82	21	1920–1940	11	.....	1940	79.5	20.5
			1930	79	22	1900–1920	38	–1	1930	77.9	22.1
			1920	71	21				1920	77.3	22.7
			1910	48	20				1910	70.7	29.3
			1900	33	21				1900	60.6	39.4
St. Joseph, Mo.	90.581	197	1960	80	11	1950–1960	1	–7	1960	88.0	12.0
			1950	79	18	194[illegible]	3	.....	1950	81.2	18.8
			1940	76	18	1920–[illegible]0	–2	3	1940	80.5	19.5
			1930	81	18	1900–1920	–25	–3	1930	82.1	17.9
			1920	78	16				1920	83.2	16.8
			1910	77	16				1910	83.2	16.8
			1900	103	19				1900	84.5	15.5

TABLE 1 (Continued)

Size and Distribution of Populations in Metropolitan Areas Wholly or Partly in Iowa, Missouri, Nebraska, and South Dakota, 1960.

SMSA	Total Metropolitan Population	Rank in Size Among All Metropolitan Areas (212) in 1960	Thousands of Persons			Amount of Change in Thousands of Persons			Percent of Metropolitan Population		
				In Central City	Outside Central City		In Central City	Outside Central City		In Central City	Outside Central City
Sioux Falls, S. Dakota	86,575	198	1960	65	21	1950–1960	13	3	1960	75.6	24.4
			1950	53	18	1940–1950	12	1	1950	74.3	25.7
			1940	41	17	1920–1940	16	.....	1940	70.8	29.2
			1930	33	18	1900–1920	15	4	1930	65.6	34.4
			1920	25	17				1920	59.3	40.7
			1910	14	16				1910	47.6	52.4
			1900	10	14				1900	42.9	57.1
Dubuque, Iowa	80.048	202	1960	57	23	1950–1960	7	2	1960	70.7	29.3
			1950	50	22	1940–1950	6	2	1950	69.6	30.4
			1940	44	20	1920–1940	5	1	1940	68.8	31.2
			1930	42	20	1900–1920	3	–1	1930	68.1	31.9
			1920	39	19				1920	67.2	32.8
			1910	38	19				1910	67.0	33.0
			1900	36	20				1900	64.4	35.6

Source: U. S. Bureau of the Census. U. S. Census of the Population: 1960. Vol. 1, Characteristics of the Population
and
Current Population Reports, Series P. 23, No. 23, October 9, 1967.

MAJOR PROBLEMS AND IMPERATIVES ASSOCIATED WITH METROPOLITAN DEVELOPMENT IN THE UNITED STATES

1. *Fragmentation in the structure of local government.* Because most metropolitan areas have grown so rapidly and because the political structure of the United States makes it very difficult to adjust government boundaries and functions to changing circumstances, nearly every metropolitan area includes a multitude of local governments which are not rationally organized in accordance with population and land-use patterns to provide effective public services at a reasonable cost. Least of all can the political structure of most metropolitan areas be conceived as organized to serve the public purpose of the area as a whole. In most of the nation's SMSA's—that is to say, municipalities—school districts, special districts, counties, townships, and other government units have been allowed to persist or have been formed to accomplish limited objectives even though many of them are too small and isolated to be operated effectively or efficiently or to accomplish the tasks for which they are responsible.

The proliferation of local governments in the metropolitan area results in a number of obvious problems which constitute a nightmare for the political scientist and layman alike. Government units too small or too poor to perform the functions they are organized to carry on, competition among coterminous or overlapping units for their individual shares of the tax dollar, confusion among citizens concerning to whom and why they pay taxes and consequent weakening in the taxpayer's willingness to provide adequate financing for local government, duplication among services to the detriment of government's ability to expand the scope and scale of needed services, lack of coordination among government units which inhibit and even block each others' programs—these are but a few of the problems typical of the crazy-quilt political structure which is typical of most metropolitan areas.

The net result of this fragmentation of local government structure, as summarized by a noted political scientist who is now an Under Secretary in the Department of Housing and Urban Development, is to create an urban political system characterized by:

> (1) A substantial divorce from the process of social mobilization as it produces "real needs" occasioned by interaction of people in space—that is, it functions only minimally to "solve problems" except the most routine ones;
>
> (2) On the part of the public, indifference to, at best, or frustration by, at worst, the operations of the system;
>
> (3) Incapacity on the part of active participants to coalesce in meaningful power centers;
>
> (4) A disposition on the part of authority-wielders to seek automatic or voluntary resolution of conflict rather than actively to secure settlement;
>
> (5) The use of institutions to raise issues rather than to settle them;
>
> (6) The creation of new power centers across the metropolitan terrain faster than the merger or regularizing of relations among old ones;

> (7) An increasing disposition of the system's output to be a function of stimuli from outside its own boundaries. In short, compared to criteria which suggest that government normally possesses qualities of purposefulness, rationality, regularized processes, and the power for the deliberate resolution of issues and conflicts, urban politics is devoid of most of the properties of a manageable enterprise.[6]

The dysfunctional consequences of this fragmentation are particularly acute, moreover, with respect to public services which require an unusual amount of specialized knowledge to perform satisfactorily, for as pointed out by an economist who has written the only book specifically concerned with urban economics, political fragmentation in the metropolitan area limits.

> . . . the absolute size of local government and thereby the total budget available to support the high specialization and professionalism needed for a first rate staff. Perhaps even more important, municipal employment may be frustrating to the most able people because the spatial extent of their power falls short of that necessary to effect bold and fruitful policies.[7]

Although none of the metropolitan areas in the Great Plains states include the thousand and more local governments to be found in the very largest SMSA's such as New York and Chicago, Table 2 shows that they are plagued with the same proliferation and fragmentation in local government structure units as exists elsewhere in the United States. For example, in St. Louis, which has the largest population among metropolitan areas in the Great Plains, there were 199 local governments existing in 1962 in the major counties on the Missouri side of the area. Forty-eight of these governments, moreover, were school districts, even though nowhere near these numbers of school and non-school governments were needed to serve the 1,572,905 people who lived in the counties which contained these governments. Similarly, in Dubuque, Iowa, which is the smallest metropolitan area in the Great Plains, there were a total of 40 local governments, 17 of them school districts, to serve a population of only 80,048 people. Granted that some of these areas now have fewer school and non-school governments than was true in 1962, it is unlikely that even the staunchest supporters of small local governments would argue that units which serve an average of two- to ten-thousand persons provide an adequate base to accomplish important public purposes in a modern, industrial society.

2. *Socioeconomic stratification and racial segregation in the metropolitan area.* The middle and latter stages of metropolitan evolution, as noted in the first section of this paper, have left the central cities with a disproportionate share of the low-income population of the metropolitan

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[6] Robert C. Wood, "The Contributions of Political Science to the Study of Urbanism," in H. Wentworth Eldredge (ed.), *Taming Megalopolis* (New York: Praeger, 1967), Vol. I, p. 206.

[7] Wilbur R. Thompson, "Urban Economics," in H. Wentworth Eldredge (ed.), *op. cit.*, p. 189.

TABLE 2

Number of Local Governments, Number of School Districts, and Total Population Served by Local Government Units in Selected Counties Included in SMSA's in Iowa, Missouri, Nebraska, and South Dakota in 1962.

State	Counties and SMSA[1]	Number of Local Governments	Number of School Districts	Total Population Served[2]
Iowa	Cedar Rapids (Linn County)	17	23	136,899
	Davenport (Scott County)	35	10	119,067
	Des Moines (Polk County)	84	27	266,345
	Dubuque (Dubuque County)	40	17	80,048
	Sioux City (Woodbury County)	41	22	107,849
	Waterloo (Black Hawk County)	36	25	122,482
Missouri	Kansas City (Jackson and Clay County)	97	15	710,206
	St. Louis (St. Louis City, St. Louis County, Jefferson County, and St. Charles County)	199	48	1,572,905
	St. Joseph (Buchanan County)	20	9	90,581
	Springfield (Greene County)	17	9	126,276
Nebraska	Lincoln (Lancaster County)	85	58	155,272
	Omaha (Douglas County, Neb.; Sarpy County, Neb.; Pottawattamie County, Iowa)	191	59	915,476
South Dakota	Sioux Falls (Minnehaha County)	155	119	86,575

Source: U. S. Bureau of the Census. Census of Governments: 1962. Vol. 1, Governmental Organization.

[1] Figures in this table are for SMSA counties in the four Great Plains states.

[2] Population data for these counties are based on 1960 census figures.

area. As our society has grown in size and as middle-income residents have sought to obtain the amenities of a prosperous economy by moving to rapidly expanding suburban communities made accessible by improvements in transportation and communications, more and more Americans each year have settled in or have found themselves living in primarily single-class neighborhoods and communities. Concentrations of low-income residents do exist, of course, outside the central cities, as do middle-class neighborhoods in the central cities, but even in the suburbs economic, social, and political forces are tending to create communities in which it is less and less common to find people of differing economic status living in close proximity to one another.

This socioeconomic stratification is closely tied in with the racial segregation that tends to exist in metropolitan areas which have a substantial number of non-white residents. Partly because so many of the latest and poorest immigrants to the cities have been non-whites, and partly because social discrimination and related forces have restricted non-whites to relatively compressed communities in or near the core parts of the central city, socioeconomic stratification and racial segregation have become practically synonymous in much of the country. The resulting crisis with regard to poverty and race in the United States is too well-known to require extensive explication, but we do wish to call attention here to certain aspects which have particular implications for the schools. Although this crisis can be traced primarily to social-class developments in American society, its racial components nearly always serve to reinforce and compound the problem to the point that it has become the major domestic issue of our times. Despite the fact, therefore, that the general points which follow are presented mostly with reference to social-class developments in the inner core of the big cities, attention will be drawn as appropriate to ways in which metropolitan problems resulting primarily from socioeconomic stratification are exacerbated by racial discrimination and injustice.

To understand what is happening and how the crisis is affecting the schools, it is necessary to recognize that there are a variety of forces which determine whether and how well youngsters will succeed in a society such as our own. In the language of the social scientist, these are the "socializing" institutions which should operate to prepare young people for positive personal adjustment and for social mobility. In our society, the most important of these institutions are the church, the school, community agencies which serve families and children, the adults and peers who provide models of behavior for the child to emulate, and, above all, the family—particularly the nuclear family which consists of both parents and their children living separately from all or most of their relatives and other people.

Having noted the crucial institutions which socialize youngsters for upward mobility in our society, it is instructive to take note of the changes that have occurred in the "socializing environment" which now exists in the heart of American cities, particularly in the inner core sections that have served for at least a century and a half as the "port of entry" for migrants from rural areas and for immigrants from other lands. What happened in America's cities between 1800 and 1940 must be counted among the most glorious achievements in all of human history, for surely there was a unique beauty to the process wherein millions of people sought to build a more prosperous way of life for themselves and their children by exchanging one set of traditional customs and behaviors for a new set more suited to an industrial economy. In many cases, the family, the school, the church, the community agencies, all these and other institutions as well worked together in a way that helped individuals to acquire the skills and attitudes which equipped them to move out of the inner core and to prosper in the wider society. Low-income youngsters growing to maturity in the inner city, moreover, could see this happening all around them, making it possible to persuade them to adopt behavioral patterns which had obviously served successfully for other people much like themselves. Thus, as pointed out by two perceptive observers who have studied the problems of poverty in American history, the slum served as

> . . . a transitional community, a social environment halfway between the preindustrial society of the rural worker and modern industrial, urban society. This function provides an opportunity for gradual adaptation to the complex demands and expectations of an unfamiliar and challenging environment. . . . In this way lower-class areas facilitate a gradual and selective movement out of the more limited and parochial atmosphere. These movements may take place initially around the necessities of work, of shopping, of schooling. Slowly they encompass a larger range of activities and engender a broader sense of the city as a meaningful geographical and social entity. . . .[8]

Thus, too, millions of middle-class citizens either grew up in poverty or are but one generation removed from ancestors who started in poverty or semi-poverty but worked successfully to attain an improved station in life. For these millions, the "American Dream" was not so much a dream as a reality. Today, however, youngsters growing up in the inner core areas of our big cities live in a much different world than did their counterparts as recently as thirty or forty years ago. Where once low-income parents were aided in raising their children by a web of reinforcing social institutions, conditions in the inner city have changed in many important respects, so that the social forces in the low-income sections of the big city now conspire to mire many youngsters ever deeper in despair and poverty. Among these changes, the following appear to be the most important:

—Since urban areas contain more people and are more stratified than they were years ago, the slum is generally larger in area and denser than it used to be. Instead of living in a low-income tenement or block from which he could come into personal contact with alternate social environments, the low-income child more often is confined within a large area in which the only world he knows at first hand is that of the defeated and alienated. Rather than having opportunities to make selective contacts with a wider society in working, going to school, or exploring alternate institutional arrangements outside of his immediate, parochial environment, he tends to become anchored within nearly homogeneous slum environments which often encompass several square miles. More often isolated in many cities by the sheer size of the modern slum, he has correspondingly fewer opoprtunities for "gradual adaptation to the complex demands . . . of an unfamiliar and challenging environment."

—Youngsters in the modern slum less frequently have the highly motivating example set by large numbers of friends, relatives, and acquaintances who give up the habits of low-income life, acquire the skills of middle-income life, and move out into the wider society to compete on an equal basis with other Americans. It is very much harder today for the low-income individual, no matter how hard he may work, to make a meaningful career for himself. Automation and mechanization have done away with most of the unskilled jobs which traditionally enabled the poor to get a good start in life. Even where still available, unskilled and semi-skilled work generally represents a deadend in life, a fact which is quickly recognized by young people. To make matters even worse, fields of work which enable a person to rise on the social ladder almost universally have come to require a better educational background than is being provided in schools in the inner core parts of the big cities.

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[8] Marc Fried and Joan Levin, "Some Social Functions of the Urban Slum," in Bernard J. Frieden and Robert Morris (eds.), *Urban Planning and Social Policy* (New York: Basic Books, 1968), p. 68.

—The school, the church, and other social institutions are no longer able to exert as positive an influence in the low-income neighborhood as they did thirty or forty years ago. In the case of the school, stratification has meant that middle-income students who set an example of good school behavior are no longer available to provide this needed stimulus. In the case of the church and the family agencies, stratification has meant that the financial support for these institutions, and often even their professional personnel, have moved far out to the suburbs, thus leaving community institutions in the inner city to struggle along as best they can.

—The family unit in the inner core parts of the central city is less frequently of the nuclear unit type than was true years ago. Among whites, for example, families which have been unable to extricate themselves from the central city slums tend to be third- and fourth-generation welfare families in which one or both parents have psychologically if not physically withdrawn from the competition for social mobility. Among low-income Negroes, families often were systematically broken up during slavery, and the efforts of Negro adults since then to establish a nuclear family pattern conducive to positive socialization for success in an increasingly impersonal social environment frequently have been tragically thwarted by discrimination in employment and by recent social welfare policies which have discouraged attempts to build strong nuclear ties.[9] In some low-income parts of the ghettos of the central cities, as a result, as many as three quarters of the young people are growing up without the full support of family resources which most sociologists believe could help protect them from the negative influences in a socially and economically depressed community.

—To make matters still worse, the modern slum is now used explicitly as the "dumping ground" for society's misfits. In earlier times "skid row" was a separate area clearly set apart from other parts of the community, but today "nice people" are no longer willing to tolerate having attention fixed on the disgusting behavior of its hopeless inhabitants. The skid row areas, as a result, are being demolished to make room for urban renewal projects, and the derelicts, perverts, and addicts who once lived there in exile are shifted to the nearby ghetto. Parents in the ghetto, in this situation, rightly feel that they have become "everybody's doormat," and their children are still more pervasively exposed to the example of social failures in order that youngsters in middle-income areas may be completely shielded from this harmful influence.

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[9] Jessie M. Bernard, *Marriage and Family Life Among Negroes* (Englewood Cliffs, New Jersey: Prentice-Hall, 1966).

—Forty or fifty years ago inner-city parents striving to persuade their children to work hard to attain long-range goals in school and society were aided by newspapers, magazines, books, and other mass media which told the child to save for the future, to renounce worldly pleasures in favor of spiritual ones, and to view the satisfaction of many of his impulses as sinful and paganistic. Does anyone believe that this is still the case? Today the messages communicated to children by the mass media tell them to "buy now, pay later" and to regard the satisfaction of worldly desires as the most glorious and personally fulfilling of all human pursuits. These messages are directed, of course, at middle-class as well as low-income children, but it is the lower-class child who is most victimized because the inner-city environment does not provide him with the alternate social and psychological support available to the middle-income child.

—Given the stereotypes which are held concerning thte poor in a relatively prosperous but stratified society, inner-city youngsters whose development deviates in significant ways from the patterns held acceptable by the larger society are unlikely to receive the meaningful opportunity and the encouragement to be "redeemed" and to make a fresh start that was frequently provided by the small-town society in which many generations of Americans grew up.[10] This situation is compounded, of course, for Negro youngsters, among whom stereotypes resulting from the racist attitudes held by so many of their fellow citizens often have a particularly debilitating effect.

—The results of poverty on socialization patterns among low-income Negro youngsters in the inner-city slum are still further magnified by discrimination patterns which have prevented even low-income Negroes who do acquire middle-class habits and skills from moving out of the ghetto to enjoy the full range of opportunities and security which should be the fruits of their hard-won achievement.[11] Stratification and segregation of the Negro thus effectively destroy the influence of parents attempting to socialize their youngsters by arguing that "You can succeed and move out in the world if only you work hard and follow the advice of adults who have your best interests at heart."

Considering all these ways in which the central-city slum in our increasingly stratified metropolitan areas is different from the low-income neighborhood of even the recent past, is it any wonder that low-income parents throughout the United States are bitterly reporting that "I can't seem to control my children anymore?" Or that thousands of parents literally lock their children in confined quarters in a last-ditch but seldom-successful effort to protect them from the unwholesome environments into which many of the city's poor have been systematically squeezed? Or that in our big cities we have produced a generation of youngsters inclined to strike back violently and indiscriminately against a society which has condemned them to stand at the bottom of the social ladder? It is almost as if we were determined to establish and maintain two nations at once, one of them the genteel and child-nurturing world of the middle-class suburb, but the other the child-destroying world[12] of the big city core in which, as anthropologist Oscar Lewis has pointed out, "the seven-year-old boy . . . has seen more of life than a lot of his schoolteachers ever will see—and I mean the really rough side of life."

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[10] Page Smith, *As a City Upon a Hill: The Town in American History* (New York: Knopf, 1966).

[11] Robert C. Weaver, *The Urban Complex: Human Values in Urban Life* (Garden City, New York: Doubleday, 1964), p. 264.

The end result, then, of the increasing stratification which is now occurring in most metropolitan areas is the creation among both whites and Negroes of what many social scientists have termed an "underclass" of alienated and dispossessed people who have little hope for themselves or their chcildren and little reason to maintain a commitment to traditional American approaches to political and social change. Among Negroes, furthermore, we are witnessing the development of "crisis ghettos" in which poverty and hostility have begun to feed on themselves like a malignant disease. Thus a recent report from the Bureau of Labor Statistics showed, for example, that while as a group Negroes have made impressive gains in employment, income, education, housing and other areas,

> . . . in the poorest neighborhoods [of Cleveland] all these social indicators showed decline.
>
> In Hough, which is one of the worst of the poor neighborhoods, the incidence of poverty increased, the proportion of broken homes increased, and the male unemployment rate was virtually unchanged. A similar study was made in various neighborhoods in South Los Angeles after the riot in Watts several years ago, and showed much the same pattern. Despite the general improvements in the conditions of life for Negroes nationally, conditions have grown worse in places like Hough and Watts. As Negro families succeed, they tend to move out of these economically and socially depressed areas to better neighborhoods where they and their children have the opportunity to lead a better life. They leave behind increasing problems of deprivation in the heart of our cities.[13]

Although no one is sure what will solve the crisis in the cities, one thing is certain: those wishing to do nothing but conduct anti-poverty or related programs in the inner city while righteously telling the low-income parent to "shape up" and redouble his already-desperate efforts to keep his children in line are prescribing a remedy appropriate to a world which no longer exists. Stratification, segregation, and other changes in our society have made the world of the inner city a qualitatively different one from what it was years ago. It is no more realistic to expect the child condemned to live in the new world of the inner city to "pull himself up by his bootstraps" than it would have been to expect most corner grocery stores to have competed successfully with A & P or other giant food retailers. In this context, for a citizen to write off the problem of growing up in the inner city as it now exists by reiterating the statement that "My people did it and so can you" constitutes little more than blind misunderstanding of the disasters which are being generated by stratification and segregation in the metropolitan area.

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[12] For graphic personal accounts of how the large-scale slum in the central city now functions to destroy the children of the poor, see Piri Thomas, *Down These Mean Streets* (New York: Knopf, 1967) and Claude Brown, *Manchild in the Promised Land* (New York: Macmillan, 1965).

[13] *Social and Economic Conditions of Negroes in the United States, October 1967* (BLS, Report No. 332. Current Population Reports Series p. 23, No. 24), pp. XI–XII.

Lest anyone believe that the stratification and segregation patterns typical of the largest metropolitan areas of the east and midwest are absent in the SMSA's of the four Great Plains states of Iowa, Nebraska, Missouri, and South Dakota, Tables 3, 4, and 5 show that: (1) poverty

TABLE 3

Percentage of Families with 1959 Incomes of $4,000 or Less in the Central Cities and Outside the Central Cities in Metropolitan Areas in Iowa, Missouri, Nebraska, and South Dakota

State in which Metropolitan Population is Located	Percentages of Families with 1959 Incomes Below $4,000	
	Central City	Outside Central City
Iowa	.20	.17
Missouri	.30	.12
Nebraska	.21	.15
South Dakota	.21	.28

Source: U. S. Census of the Population: 1960. Vol. I, Characteristics of the Population.

TABLE 4

Percentage of Non-white Families with 1959 Income of $4,000 or Less in Metropolitan Areas in Iowa, Missouri, and Nebraska.[1]

State	SMSA	Percent
Iowa[2]	Cedar Rapids	.50
	Davenport	.45
	Des Moines	.64
	Sioux City	.58
	Waterloo	.44
Missouri	Kansas City	.65
	St. Joseph	.72
	St. Louis	.70
	Springfield	.81
Nebraska	Lincoln	.67
	Omaha	.62

Source: U. S. Census of the Population: 1960. Vol. 1, Characteristics of the Population.

[1] Equivalent data are not available for the Sioux Falls, South Dakota, SMSA, but other census data show that non-whites in urban areas in South Dakota tended to be considerably disadvantaged economically both absolutely and relative to whites when the 1960 census data were collected. These figures show that the percentages of "urban persons" fourteen years or older in families with less than $4,000 income in 1959 were .55, .72, and .82 for whites, Negroes, and "others," respectively.

[2] These data are not available for Dubuque, which was not officially designated as an SMSA until after 1960.

TABLE 5

Selected Poverty Statistics Based on 1965 Individual Income Tax Returns for Residents in Des Moines, Iowa; Kansas City, Missouri-Kansas; Omaha, Nebraska-Iowa; and St. Louis, Missouri-Illinois Standard Metropolitan Statistical Areas.

SMSA	Percent of Returns With Adjusted Gross Under $3,000	Percent of White Families Below Poverty Level[1]	Percent of Non-White Families Below Poverty Level	Percent of Non-White Families Residing in Poverty Area[2]
Des Moines	19.8	8.2	33.	35.8
Kansas City	26.8	23.2[3]	51.7	86.7
Omaha	30.5	9.8	33.2	75.6
St. Louis	26.4	8.9	42.1	86.9

Source: U. S. Bureau of the Census, *Metropolitan Area Statistics*. Reprinted from Statistical Abstract of the United States. Washington, D.C. 1967.

[1] Poverty level is defined as Family Income of $3,000 or less for the year 1964.

[2] Poverty area is defined according to criteria specified by the Bureau of the Budget.

[3] The white population of Kansas City includes many low-income citizens of Mexican-American descent.

tends to be concentrated in the central city sections of metropolitan areas in Missouri and Nebraska; (2) poverty is a particular problem among nonwhites in metropolitan areas throughout the four states, including even those which have relatively few non-white residents (the percentages of nonwhite families having an income of less than $4,000 per year as reported in the 1960 census varied from a low of 44 in Waterloo to a high of 81 in Springfield); and (3) that incipient if not full-fledged "crisis ghettos" have been allowed to develop in St. Louis, Kansas City, Omaha, and Des Moines.[14]

3. *Inadequate Social Environments for Middle-income Students in Single-class Sections of the City and the Suburbs*

Examined in terms of the preceding discussion of the effects of stratification in the inner city, it is clear that to some extent the relative isolation of the single-class, middle-income community is being purchased and maintained at the expense of the poor and the minorities in the central city. In a number of important respects, furthermore, even predominantly middle-income communities in the metropolis do not provide a good environment in which to raise youngsters.

Such communities apparently do succeed, to be sure, in providing a congenial setting which is satisfactory to their adult residents, and there is also a good deal of evidence which shows that local institutions—particularly the schools—are doing a fairly good job in helping children acquire the specialized skills needed to compete successfully in the society at large. But, often inhabited primarily by persons with similar life styles and previous experiences, homogeneous suburban areas (or outlying neighborhoods in the central city) are not necessarily good places for youngsters to grow up in or for preparing them to participate in a pluralistic society.

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[14] It is quite possible that similar developments may be occurring in others of the remaining nine metropolitan areas in the four states, but we do not have equivalent data on the smaller SMSA's in the region.

All too many homogeneous, suburban-type neighborhoods, for one thing, can be described as being faced with the following problems which Herbert Gans recently found prevalent in Levittown, New Jersey:

> The adult conception of Levittown's vitality is not shared by its adolescents. Many consider it a dull place to which they have been brought involuntarily by their parents. Although most adolescents have no trouble in their student role, many are bored after school and some are angry, expressing that anger through thinly veiled hostility to adults and vandalism against adult property. Their relationship to the adults is fraught with tension, which discourages community attempts to solve what is defined as their recreational problem.[15]
>
> Like most suburban communities, Levittown was planned for families with young children. The bedrooms are too small to permit an adolescent to do anything but study or sleep; they lack the privacy and soundproofing to allow him to invite his friends over. Unfortunately, the community is equally inhospitable.[16]
>
> Part of the adolescents' dissatisfaction with the community—as with adult society in general—is that they are functionless outside of school. American society really has no use for them other than as students, and condemns them to spend most of their spare time in recreational pursuits. They are trying to learn to be adults, but since the community and the larger society want them to be children, they learn adulthood only at school—and there imperfectly.[17]

Like their counterparts in the inner city, middle-income parents often have much to worry about when their children grow up in a setting which gives them only a meagre opportunity to cope with the problems of adolescence and to learn to fulfill constructitve roles in society. Juvenile delinquency, alienation from parents and school, sexual promiscuity, drug usage, and a variety of other behaviors frowned on by adults are appearing with increasing frequency in the middle-class community; and the schools, like the church, the family, and other social institutions, seem unable to cope with the situation very effectively. A certain amount of deviance among middle-income adolescents is inherent in the process of growing up, but the schools could and should do much to help adolescents adjust to the pressures of modern life by working closely with youth agencies, employers, and others to provide more appropriate recreational and employment opportunities for middle-class youngsters and by adding specialists to implement a curriculum which would deal more meaningfully with such topics as drug addiction, sex education, and parent-child relationships.

A second major problem involving the socialization of youngsters in relatively homogeneous middle-income sections of the metropolitan area is reflected in the mounting evidence which shows that children growing up in the protective cocoon of such communities acquire negative stereotypes concerning the members of low-income and other minority groups in the metropolitan area.[18] While social scientists have not been able to reach definitive conclusions concerning the best methods for providing experiences which develop intergroup and interracial understanding among children (or among adults, either, for that matter), almost all do agree that it is extremely difficult and perhaps impossible to combat prejudicial and discriminating attitudes very effectively in the absence of direct contact and shared experience with those who are the victims of these attitudes. In this sense, of course, the middle-income community and the school which serves it can be considered as incubators of prejudice and engines for maintaing the very patterns of stratification and segregation which already have done so much to divide American society and thus prepare the ground for the holocausts and/or repressive police-state measures which loom over the not-too-distant horizon.

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[15] Herbert J. Gans, *The Levittowners* (New York: Pantheon, 1967), p. 206.

[16] *Ibid.*, p. 208.

[17] *Ibid.*, p. 215.

4. *Weakening of the Unifying Norms which Facilitate Productive Interaction among Citizens in the Metropolitan Area.*

If any society is to function well, common understandings are needed so that people can aid each other in solving one another's problems and in working together productively to achieve agreed-on goals. Produced in large measure by shared symbols and experiences, widely accepted understandings concerning what is right and proper in human behavior are difficult to maintain in a society in which social and political institutions keep people identified with various groups physically and spiritually separate from one another. The essential issue which thus arises as a result of metropolitan development has been defined by Gideon Sjoberg as follows: "Is a complex division of labor sufficient to sustain an industrial-urban order?"[19] Recognizing that the complex division of labor in modern society requires a set of social norms which facilitates cooperation among interdependent individuals who make diverse and increasingly technical contributions to the industrial economy, Sjoberg also notes that an intensive division of labor tends to foster ". . . vested interest groups that crystalize about specialized occupations and vie for the social rewards that derive from industrialization."[20]

Admitting that the division of labor does not in and of itself prevent the development of unifying norms if people are sufficiently aware of what it means to be dependent on one another, there is no guarantee that behavior and beliefs will reflect the high degree of interdependence in which we live. In an increasingly stratified and fragmented society such as our own, the inhibitions on personal interaction between people of varied social groups and the lack of a political mechanism capable of dealing very effectively with social problems except within limited local jurisdictions militate against the development of commonly-accepted definitions of reality and, therefore, of the measures which might be taken to cope with urban problems.

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[18] Alice Miel, *The Shortchanged Children of Suburbia* (New York: Institute of Human Relations Press, 1967).

[19] Gideon Sjoberg, "Cities in Developing and Industrial Societies: A Comparative Sociological Approach," in H. Wentworth Eldredge (ed.), *op. cit.*, p. 148.

[20] *Ibid.*, p. 136.

The consequent weakening in unifying norms and perceptions which bind people together in working constructively to achieve a common goal are illustrated in many contemporary situations. Among the poor in the central city, for example, the feeling develops that the social welfare system is consciously organized so as to make them feel degraded and powerless, while many of the affluent citizens in middle-class communities come to feel that thousands of people in the poverty area are seeking to live "high off the hog" on beneficent welfare rolls. Given the extremely complicated social system which is the metropolitan area, many in the lower-middle class find it convenient to believe that government is controlled by a rich and powerful clique at the same time that members of the upper class are concluding that government officials are attempting to confiscate their wealth and destroy their status.

The effects of these perceptions, in turn, are reflected in the rejection of proposals to improve the urban environment and in continual stalemate among social groups among which there is little understanding concerning the conditions of each of the others and only very general consensus concerning the nature of the public interest. Without common social experiences which allow the development of these understandings and perceptions, it is difficult to see how social and human resources can be mobilized to maintain the viability of the metropolitan area. Indeed, as Lewis Coser has pointed out in his study of the dynamics of social change, conflicts in such a society are more likely to intensify than to be peacefully resolved:

> Different parties may disagree violently on whether a given event is to be considered decisive or of only incidental significance. Such contentions are likely to be more deep-going the less integrated the social structure. . . . In highly polarized social systems where a number of internal conflicts of different sorts are superimposed upon one another, there exists hardly any common definition of the situation binding all members of the society to commonly held perceptions.[21]

5. *Physical Deterioration and the Crisis in Public Finance in Parts of the Metropolitan Area*

As metropolitan development proceeds, relatively large sections in the central city begin to deteriorate and pockets of poverty and blight in the suburbs begin to be enlarged. Although massive amounts of physical and human resources are needed to renew these areas, political fragmentation and socioeconomic stratification in the metropolitan area generally result in a situation wherein the communities most in need of additional resources are the least able to secure them. In the central city, for example, the high cost of providing services to deal with social problems not encountered with equal severity in most other parts of the metropolitan area places an extra burden on the municipality and tends to set off a vicious circle in which a level of public services inadequate to deal with social realities and the flight of middle-class residents reinforce one another, thus creating a fiscal crisis for many governments in the city.

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[21] Lewis A. Coser, *Continuities in the Study of Social Conflict* (New York: The Free Press, 1967), p. 47.

Nearly all the metropolitan areas in the Great Plains Region are sufficiently far along in their evolution to be faced with serious problems of physical deterioration and fiscal incapacity in their central cities and in parts of their suburbs. The larger ones, such as St. Louis and Kansas City, have evolved in a way similar to most other metropolitan areas of one million or more people, and the smaller ones, such as Des Moines and St. Joseph, typically find that their established commercial centers have been losing ground to newer enterprises located more conveniently along major interstate and interurban highways or have been suffering from the competition of larger metropolitan areas elsewhere in the region or the country. The challenges of urban physical and social renewal and of alleviating financial crises in the central city, as a result, are present in metropolitan areas throughout the Great Plains states.

Partly because urban redevelopment projects are carried out under plans which need but cannot really require the participation of a multitude of private individuals and public as well as private organizations, and partly because many of the inevitable components of renewal seldom can be provided adequately by a single municipality (e.g., transportation networks, water supply systems), successful urban renewal depends on cooperative planning and action on the part of many social institutions. Projects to clear a slum or stabilize a declining neighborhood, for example, seldom will succeed unless school officials work with planning officials to provide and maintain educational programs attractive to middle-income as well as low-income parents. Projects intended to maintain the commercial and industrial strength of the city, similarly, depend on the combined efforts of highway planners, tax assessors, private utilities, and many other individuals and institutions, and planning for recreational facilities calls for cooperation on the part of park departments, housing tract developers, school administrators, and zoning officials, among others. Without widespread cooperation of this sort, resulting in the coordination of many diverse social systems throughout the metropolitan area, first the central cities and then many of the suburbs likely will face a spiral of continuing physical deterioration and progressive decline in their capacity to maintain an environment conducive to the satisfaction of the needs and hopes of the residents of the metropolitan area.

6. *The Need for Cooperation to Solve the Major Problems of the Metropolitan Area*

Urban renewal is not, of course, the only problem which requires widespread cooperation between the schools and many other social institutions. All the well-known problems of urban society, whether they manifest themselves in physical forms such as progressive fouling of the air we breathe and the water we drink or in social forms such as the unrest among our young people and the meanness with which people treat each other as individuals or members of groups, depend for their solution on the cooperative effort of a variety of institutions and organizations throughout the metropolitan area. With interdependence becoming an ever more pervasive characteristic of modern society, solutions to the critical problems arising from technological change cut across the primarily perceptual boundaries which separate one organizational activity from another. Forced to recognize this, the federal government undertakes to provide training for jobless, alienated young men and women, and immediately turns to industry and the universities to operate its job corps centers. The fire department in a prospering suburban community finds that the costs of modern equipment exceed its not unlimited budget, and turns to neighboring towns and villages for help in time of need. The public health officials in one community fight a hopeless battle against insect-borne pestilence spawned in marshy swamps adjacent to communities twenty miles distant, and have no recourse but to work with distant counterparts or leave the job unfinished. The point is so obvious tthat there is really no need to belabor it: the organization in an interdependent society is charged with tasks it cannot do alone; it is beholden to a myriad of other organizations, and no amount of determination can restore the self-reliance it may have had in the less complicated past.

Particularly among government officials, accordingly, there is growing awareness of the need for interinstitutional cooperation to maintain and improve the quality of life in the metropolitan area. While it once was thought sufficient to coordinate the efforts of organizations engaged in a single function such as the operation of hospitals, it has become clear that *comprehensive* planning is needed to coordinate a variety of services such as medical care, transportation, and social welfare planning. While the goals of urban renewal and urban improvement could be discussed in the 1920's and 1930's primarily in terms of city planning, the formation and strengthening of metropolitan planning units throughout the United States is a direct response to the fact that these goals are no longer attainable without *areawide* planning. While urban planners formerly gave most of their attention to the improvement of the physical environment, today it is widely recognized that physical planning without *social* planning is unable to accomplish much in solving the major problems of the modern metropolis.

In making this point, for example, Harold Gilliam recently noted that, "If a proposed highway would disrupt a neighborhood, displace homes, increase pollution, destroy jobs, or invade a park or scenic area, these detriments should be calculated and subtracted from the potential benefits in determining whether the highway should be built."[22]

If, similarly, the siting of a new public school will increase segregation and stratification, place a heavy burden on major traffic arteries, cause an overload on water and other utilities, or make it difficult for students to have easy access to part-time jobs in established commercial centers, the welfare of the residents of the metropolitan area requires that decisions made by school officials be closely coordinated with decisions made by officials in other social systems.

As soon as one enumerates and recognizes the critical problems of the metropolitan area, furthermore, it becomes apparent that solutions to many of them depend on the cooperation and participation of the educational system. Consider, for example, the following commentary by Secretary of the Interior Stewart L. Udall concerning the quality of the social and physical conditions which have come to exist in our metropolitan society:

> This nation leads the world in wealth and power, but [it] also leads in the degradation of the human habitat. We have the most automobiles and the worst junkyards. We are the most mobile people on earth and we endure the worst congestion. We produce the most energy and have the foulest air. Our factories pour out more products and our rivers carry the heaviest load of pollution. We have the most goods to sell and the most unsightly signs to advertise their worth.[23]

As is implicit in this capsule description of the metropolitan environment, the problems which are growing so severe in the modern metropolis are attributable not so much to lack of technical knowledge for coping with them as to the underlying attitudes and the established social and political arrangements which prevent us from applying this knowledge to their solution. Here, then, is a major challenge to the educational system, which, after all, has become society's major organized institution for developing constructive social attitudes as well as valuable technical skills among children and adults alike, and which, for this reason, is rapidly being recognized as the most central public institution in the modern world.

Since education has become one of the most central if not the single most important social function in modern society, and since the functioning of the schools is so directly tied to other characteristics of the social context in which they operate, the educational system has a very large role to play in comprehensive, areawide planning and action to achieve the goals toward which most Americans aspire. Certain social goals—such as adequate recreation, training for employment, and the building of good human relationships among the people in a pluralistic society—are particularly dependent on cooperation between the schools and other social institutions, but there is hardly a single social function in the metropolitan area which cannot be significantly facilitated given close working relationships between educators and other public and private officials. In a very broad sense, therefore, planning for the future of public education in our urban society must recognize the desirability of restructuring the educational system so as to enhance the likelihood that the schools can take a major part in comprehensive areawide efforts to cope with the problems of metropolitan society.

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[22] Harold Gilliam, "The Fallacy of Single-Purpose Planning," in Stephen R. Graubard (ed.), *America's Changing Environment* (Cambridge, Massachusetts: the American Academy of Arts and Sciences journal *Daedalus*, Fall, 1967), p. 1143.

[23] Stewart L. Udall, *The Quiet Crisis* (New York: Holt, Rinehart & Winston, 1963).

SUMMARY OF MAJOR PROBLEMS IN EMERGING METROPOLITAN SOCIETY

The problems and imperatives cited above as major problems of emerging metropolitan society are interrelated. With too many units of local government to allow for effective operation or productive cooperation to serve the larger public welfare, with low-income, often alienated citizens concentrated in physical and social environments which make it inordinately difficult to obtain an equal opportunity to compete in an industrial economy, and with its residents cut off from the kinds of contacts which could help them learn to understand and work constructively with one another, the metropolitan area as we know it today and as we see it developing in the Great Plains States of Iowa, Missouri, Nebraska, and South Dakota does not appear to be a very promising instrument for achieving the material and spiritual goals with which the United States traditionally has been identified. Arising, in the words of Bernard Frieden, from a context of intergovernmental relations and intergovernmental warfare "... in which considerations of municipal finance join with social prejudices in creating incentives for public officials to prevent the poor from living within their jurisdiction ...,"[24] the problems of the metropolitan area are not likely to be solved without major changes aimed at reorganizing its political structure so that governmental units can be more effective in their own right and can work effectively with each other as well as with a multitude of private groups and individuals. As a central institution in modern society, the public schools must be directly and heavily involved in both these aspects of metropolitan reform.

IMPLICATIONS FOR EDUCATION AND FOR SCHOOL DISTRICT ORGANIZATION IN THE METROPOLITAN AREA

Insofar as public education is a major governmental function in the metropolitan area and is provided by governmental units which encounter problems similar to those faced by other governments in the same geographic territory, many of the major problems in metropolitan education are direct reflections of the broader problems of the metropolitan area as a whole. Based, therefore, on the foregoing six problems and imperatives identified as emerging problems associated with metropolitan development in the United States in general and the Great Plains states in particular, definite conclusions can be drawn with respect to implications for public education and for school district organization in the metropolitan area.

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[24] Bernard J. Frieden, "Toward Equality of Urban Opportunity," in H. Wentworth Eldredge, *op. cit.*, p. 513.

Just as general political fragmentation in the metropolitan area is synonymous with the existence of many government units too small to operate efficiently and to attract the quality of personnel needed to provide the increasingly technical and specialized public services of an industrial society, so, too, the multiplicity of school districts in most metropolitan areas means that many of them are too small to provide specialized educational services at a cost which the taxpayers who support them are willing to tolerate. The recognition of this problem is basic, of course, to every one of the studies being conducted as part of the Great Plains School District Organization Project, but it has special relevance in an analysis of emerging metropolitan development in the Great Plains states.

Keeping in mind that the metropolitan area by definition is the geographical arena in which people are sufficiently close to one another and in sufficient contact to make them directly interdependent upon one another, it can be inferred that some educational functions which are particularly expensive and lend themselves especially well to economies of scale or which are designed to cope with critical educational-social problems that are metropolitan in scale should be provided on an areawide basis rather than across some smaller section of the metropolitan area. Among the former functions are educational research, which is greatly facilitated by the availability of large populations and the existence of standardization in administrative and organizational procedures across large units, and others which are being identified by a variety of experts serving as consultants to the Great Plains Project. Among the latter are functions, identified in the next pages of this paper, which are related to the problems enumerated in our analysis of the development of the metropolitan area in the United States.

1. *Implications Arising from the Fragmentation in the Government Structure of the Metropolitan Area.*

In addition to the fact that many of the school districts which exist in most metropolitan areas are too small to be able to employ a variety of specialists who could make a major contribution to the improvement of instruction in the public schools, there is also evidence which suggests that the multiplicity of school governments is one important obstacle that makes it difficult to coordinate the work of the educational system with other social systems in achieving comprehensive, area-wide planning and action in the metropolitan area.[25] Since we have seen that comprehensive, area-wide cooperation is a vital ingredient in developing human and material resources and carrying out urban social renewal to solve the problems of an industrial society, it follows that the number of independent school districts in most metropolitan areas is too large to facilitate the performance of these broad social and educational functions.

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[25] Daniel U. Levine and Jerry B. Clavner, *Multi-jurisdictional Metropolitan Agencies and Education: A Study of the Involvement of Educators in the Work of Planning Commissions and Councils of Governments, Summer 1967* (Kansas City, Missouri: Center for the Study of Metropolitan Problems in Education, 1968), (in process).

Except possibly in the very largest metropolitan areas such as New York and Chicago, where there may be too many people to allow for adequate representation of local interests in organizations which are area-wide in scope, the easiest and surest ways to facilitate interaction and cooperation between the educational system and other area-wide functions such as are performed by metropolitan planning commissions, highway planning departments, or metropolitan employment agencies are to organize a single public school system in the metropolitan area or to bring school districts together in an intermediate unit responsible for coordinating the work of the educational system with the efforts of other social systems in the area as a whole. From this point of view the minimum goal for the educational system in the metropolitan area should be to organize a single intermediate district with sufficient authority to assure that decisions concerning education are defensible in terms of comprehensive, multi-functional planning to maintain the viability of metropolitan society.

2. *Implications Arising from the Patterns of Social Stratification and Racial Segregation in the Metropolitan Area.*

Because the topic obviously is so central an aspect of the urban crisis, we devoted a good deal of space in an earlier section of this paper to describing how socioeconomic stratification and racial segregation patterns in the United States are associated with the existence of social environments in which it is extremely difficult if not impossible to properly raise children—especially minority group children who live in parts of the metropolitan area in which poverty is massively concentrated. The way in which the educational system is particularly implicated in this broad social problem should be viewed in terms of what is known concerning the effectiveness of the public schools in attempting to provide adequate educational opportunities for students from low-income families. Briefly, research presently available supports the following conclusions regarding the success or lack of success of the schools in overcoming the educational disadvantages experienced by low-income groups and minority groups in American culture:

a. Most social scientists are in agreement that there is no good reason to conclude that the children in any particular social group are born with a general capacity for learning superior to that of children in other social groups and that the inherent capacity for learning and achievement of human beings in any social group has never been fully developed in any society known to history. Viewed from these starting points, the educational system in the United States cannot now be considered a potent instrument for providing equal educational opportunities to the nation's youth. Students generally perform about as well in school, that is to say, as one would expect, given the advantages or disadvantages which accrue to them in their family and community environments. Students from high and middle-income families tend to get a relatively good start in school because their early experience and their socializing environments prepare them to perform well in the role of student. Students from low-income families, on the other hand, tend to be unskilled in the formal language used in the school and to lack various other skills and experiences which would help them do well in the classroom. Not only do students whose background experiences are such as to prepare them for success in school maintain their relative advantage and tend to do well in the competition to enter college and gain rewarding positions in later life, but students with educationally disadvantaged backgrounds tend to experience a "cumulative deficit" which results finally in a widespread failure to graduate from high school and to acquire the vocational skills neeedd to succeed in an industrial economy.

b. Partly because most teachers have not been specifically prepared to and do not know how to provide effective instruction for the low-income child, partly because traditional instructional practices do little to help the disadvantaged child learn, and for a number of other reasons associated particularly with the problems of growing up in the slum or the ghetto which there is no space to enumerate in this paper, major changes and improvements must be made in instructional programs if the school is to overcome or "compensate" for the learning difficulties which most disadvantaged children now experience in the nation's classrooms. These changes must, indeed, be so thorough and expensive that no one can now be sure exactly what it will take and how much it will cost to provide adequate educational opportunities for the disadvantaged, and the only certainties are that regardless of the setting or sequence in which educational experiences are provided for the disadvantaged, (1) a great deal of attention must be given to making these experiences specially appropriate for disadvantaged students; and (2) the cost will be much more than is now being spent to provide education for the disadvantaged child.

c. Because the low achievement of the disadvantaged child can be attributed in part to the special problems encountered by teachers, the lack of good "models" of how to perform in the role of student, and the sense of isolation and lack of control over one's future experienced by pupils in the school made up predominantly of low-income pupils, placing disadvantaged children in classrooms with a majority of middle-income pupils can make a significant contribution toward improving the achievement of the former without detracting from the achievement of the latter. Providing an educational setting in which there is a good balance of students from various social-class groups does not, however, automatically obviate the need to greatly alter established instructional practices so as to make them relevant for the disadvantaged child as well as for all other children in the school. Socially destratified education (which often takes the form of integrated education for the low-achieving, minority student) and compensatory education should not, therefore, be seen as mutually exclusive approaches to the provision of equal educational opportunities for disprivileged children, but rather as complementary goals in the sense that destratification in the school provides a desirable and potentially effective means for facilitating the implementation as well as significantly reducing the very high costs of any educational program seriously aimed at overcoming the learning difficulties presently experienced by students from low-income and/or minority-group families.

The three clearest implications of these conclusions concerning the organization of public education in the metropolitan area are as follows:

a. In order to provide the large sums of additional money needed to improve educational opportunities for disadvantaged children, the metropolitan education system must be viewed as a single source of revenue for attaining the area-wide quality of education required in an industrial society, and steps must be taken to make sure that the resources of the area as a whole are drawn on to whatever extent necessary to make education more effective in schools or classrooms which have substantial numbers of disadvantaged children. As a bare minimum, this perspective suggests that an appreciable percentage of the funds utilized for public education should be determined and collected by a metropolitan-wide education taxing authority. One way to do this would be to have the state government collect a much larger amount and percentage of education revenues on the basis of ability to pay and to redistribute these revenues more in accordance with the real needs of students in local districts than is presently the case.[26] Although this alternative would fix responsibility most clearly on the state government which constitutionally is obligated to provide equal educational opportunities for the children in a state, the metropolitan area itself probably constitutes the more appropriate taxing and distributing unit inasmuch as the sophisticated determination and redetermination of educational needs based on measures related to the proportion of disadvantaged childern in a local school or community can be made more easily and more rapidly at the metropolitan level than at the state level.

b. In order to provide equal educational opportunities as economically as possible and to ensure that compensatory educational programs have the potential to be effective, there should be a metropolitan unit with sufficient authority to initiate measures which would begin to reverse trends toward stratification and segregation in school and society in the metropolitan area. Though space does not here permit a full analysis of what such a unit should or could do toward this end, it is clear that the range of activities which might be engaged in by a metropolitan service unit or a metropolitan school district in this regard—ranging from selection of school sites and the construction of new school facilities to the provision of strong financial incentives for destratification in local parts of the metropolitan area—is very broad. In previous historical periods, perhaps, there was less need for a metropolitan unit to take effective action leading toward destratification and desegregation of the metropolitan educational system, but the increasingly critical nature of the problems arising from stratification and segregation, together with the fact that large numbers of low-income and/or minority students are beginning to be concentrated in sections outside as well as inside the central ctiy, means that the organization of such a unit is an important step toward maintaining the long-range viability of the metropolitan area.

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[26] For a promising proposal along these lines, see John Shannon, "The Role of the State in Equalizing Educational Opportunity—an ACIR Legislative Proposal," in *The Challenge of Change in School Finance: Proceedings of the Tenth National Conference on School Finance*, April 2–4, 1967 (Washington, D. C.: Committee on Educational Finance, National Educational Association, 1967), pp. 31–47.

c. In order to enhance the quality of education in schools serving predominantly low-income students, metropolitan-wide policies must be put into effect which are explicitly intended to improve teaching and administration in the inner city. In part this goal might be attained merely by making more metropolitan resources available to train teachers and reduce class size in the inner city, but in view of the body of research indicating that quality of teaching is the single most important instruction-related factor which influences the achievement of disadvantaged students[27] and the fact that there is a shortage of outstanding teachers willing to undertake a career in the low-income school,[28] it is particularly important to devise some sort of metropolitan education district with sufficient authority to help low-income schools compete for good teachers by enforcing policies to assure that teachers in low-income parts of the metropolitan area are paid at least as much as are teachers in middle-income communities.

3. *Implications Arising from the Inadequacy of the Single-class Community as an Environment in which to Raise Middle-income Students.*

The educational system can do much to overcome the sense of alienation and meaninglessness which seems to be spreading and growing deeper among middle-income students in the suburbs. School programs can be and are being devised, for example, to help students deal with the temptation to misuse drugs and to provide them with accurate information which might help them cope with problems involving sex and social relationships during adolescence. Much can be done to utilize school buildings in the afternoon and evening for leisure programs designed to help students learn adult roles without feeling that they are being overly supervised by their parents. It is certainly possible, above all, to improve curriculum and instruction in such a way that more middle-income students will begin to perceive their schoolwork as having greater relevance to the real world outside the school.

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[27] James S. Coleman, *et al., Equality of Educational Opportunity* (Washington, D. C.: U.S. Government Printing Office, 1966).

[28] Robert J. Havighurst, *The Public Schools of Chicago* (Chicago: Board of Education, City of Chicago, 1964).

To do these things, however, most school districts need more money to train and/or employ personnel with specialized skills in developing and carrying out new or different curricula aimed at improving or supplementing instructional programs currently being carried out in the schools. It is difficult to perceive any justice in the present situation wherein with the exception of a few large cities and especially wealthy suburban school districts, few metropolitan school districts are able to employ specialized personnel to prepare and staff adequate instructional programs designed to help our young people deal with the problems of adolescence or to make school curricula more relevant and exciting than they generally are at the present time. To be able to combat growing alienation among middle-class students, therefore, schools throughout the metropolitan area must be able to draw on the services of a centralized administration or of an areawide intermediate unit which has the resources to sponsor curricular improvement projects which few districts can afford to undertake by themselves.

With respect to the need to provide middle-income students in single-class communities with opportunities to meet and work with students from differing social backgrounds, a metropolitan educational unit with authority to take action aimed at reducing stratification and segregation in local school districts could contribute as much to achieving the pluralistic goals of American society as to the equally-immediate goal of improving education for disadvantaged youth. In this context, moreover, a metropolitan unit could sponsor and supervise the development and implementation of curricula dealing with human relations and intergroup relations in every classroom in the metropolitan area, thus making it possible for the educational system to begin discharging its very profound responsibility to help Americans of various social and racial groups learn to live together in a united rather than a divided nation.

4. *Implications Arising from the Weakening of Unifying Norms which Facilitate Productive Interaction among Citizens in the Metropolitan Area.*

Inasmuch as the major programs which the educational system should undertake to encourage contact and cooperation between individuals and groups in the metropolitan area have been implicitly described in the preceding three sections, implications arising from the emerging problem in metropolitan society can be stated quite briefly at this point. If, in other words, the metropolitan educational system were restructured so as to facilitate comprehensive, area-wide planning and action to improve the quality of life in the metropolitan area, to reduce patterns of stratification and segregation which isolate groups of students from one another, and to help students develop the understandings and habits needed to maintain the worability of a pluralistic nation, the public schools could become a significant force in developing unifying norms which the educational system—along with the mass media, religious bodies, and other key social institutions—must now define as one of the most important of their basic purposes. As above, therefore, the conclusion follows that either a single school district or a metropolitan intermediate district is needed if the schools are to play their rightful role in maintaining the viability of our society.

5. *Implications Arising from Physical Deterioration and the Crisis in Public Finance in Parts of the Metropolitan Area.*

We have already indicated that the renewal of visibly deteriorated or deteriorating parts of the metropolitan area with a greater-than-average need for public services and a declining tax base depends on joint effort on the part of the schools and many other social institutions; and we have pointed out that the establishment of a metropolitan school district or an area-wide intermediate unit would greatly facilitate cooperation between the schools and other organizations. In addition, attention also was drawn to the contributions a metropolitan educational unit should make in redistributing school revenues so as to provide more funds to low-income schools in the central city and other parts of the metropolitan area which cannot now draw on adequate resources to provide equal educational opportunities for the students who attend them.

It should also be pointed out, however, that in several respects the functioning of the educational system is crucial in perpetuating or overcoming the vicious circle which is responsible for proliferating social problems in many parts of the metropolitan area. It is becoming widely recognized, for example, that projects to clear slum buildings and build new housing in order to keep some middle-income parents in the central city are unlikely to succeed unless the local public schools provide high quality educational programs which are attractive to these parents[29] and that without a middle-class population base the cities have a very bleak future, but central city schools often are unable to raise as much in taxes to support such programs as are many wealthy suburban school districts.[30]

There is also evidence, furthermore, that the presence or immigration of well-educated, high status residents in relatively affluent parts of the metropolitan area makes it possible to raise additional funds that are used to strengthen school programs which in turn attract still more high-status families[31] who commendably desire to pass on educational advantages to their children. From the point of view of the individual college-educated parent, differentials thus created in the quality of education and the adequacy of local communities seem just and proper, but the overall effects of this development are to generate and reinforce the process of stratification which results in socially-harmful and indefensible inequities in the metropolitan area as a whole and to make it necessary to establish a metropolitan educational unit empowered to collect and redistribute school revenues on a more equitable and socially-justifiable basis.

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[29] Robert J. Havighurst, *Education in Metropolitan Areas, op. cit.*; Edmund K. Faltenmayer, *Redoing Cities* (New York: Harper and Row, 1968).

[30] Seymour Sacks, "Central City and Suburban Public Education: Fiscal Resources and Fiscal Realities," in Robert J. Havighurst (ed.), *Metropolitanism: Its Challenge to Education* (Chicago: The University of Chicago Press. The Sixty-seventh Yearbook of the National Society for the Study of Education, 1968, Part I), 148–176.

6. *Implications Arising from the Pervasive Need for Cooperation to Solve the Major Problems of the Metropolitan Area.*

Since the metropolitan area by definition is a discrete geographic territory in which people and groups are highly interdependent on one another, and since the complex affairs of a metropolitan society cannot be carried on very well unless individuals and institutions work closely together to solve the extremely complicated problems which exist there, we have tried to show why the metropolitan educational system must be reorganized in a manner which recognizes the interdependence of the metropolitan area and the imperatives for cooperation which arise from this interdependence. In general we have seen that this could be achieved either by reorganizing local districts so as to constitute a single school district in metropolitan areas no larger than those in the Great Plains states or by establishing a metropolitan intermediate unit with sufficient authority to take action to help solve the major problems of metropolitan society.

Whether the former or the latter alternative should be considered a better approach for correcting deficiencies associated with the excessive multiplicity of school governments in the metropolitan area is not completely certain at the present time. In view, however, of the importance of relating school decisions and programs as closely as possible to the local community, we believe that it is generally desirable to provide educational services through autonomous local school districts whenever this traditional pattern of school organization meets well-known criteria of effectiveness and efficiency and does not conflict with the public interest in the larger community. Mainly for this reason, therefore, we hope that it will prove possible for a number of local school districts to function in most metropolitan areas, while joining together to form an intermediate metropolitan district to carry out certain functions such as those enumerated on the preceding pages.*

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[31] Research conducted by G. Alan Hickrod, for example, indicates that ". . . growth in certain human resources of a school district appears to be more important to growth in local expenditure and fiscal effort than is growth in property valuation," "Ecological Changes Within a School District and Expenditures for Education," *Journal of The American Educational Research Association*, May, 1967, 241–252.

To what degree the member school districts in an intermediate metropolitan unit should retain their present identity and autonomy is also something of an open question. It would be possible, on the other hand, to establish a metropolitan unit to serve member districts virtually as discrete and autonomous as is currently the case; to do this, local school districts need only enlarge and formalize extensive intersystem cooperative efforts which presumably already exist in many metropolitan areas.[32] It would also be possible, on the other hand, to redefine the legal status of the member districts so that they are designated as "semi-independent community districts" which are components in a metropolitan district with the clear authority to act in the long-range interest of the metropolitan area as a whole. The latter alternative is being widely discussed in the Louisville Metropolitan Area,[33] and its inherent unambiguity makes it, in our opinion, the most promising plan now being considered as an approach to reorganizing the metropolitan educational system in accordance with the functional integrity of the metropolitan area.

It should also be noted, finally, that social institutions such as the school which are charged wtih developing the human and physical resources of a metropolitan society can hardly succeed in this task without accurate and constantly up-dated information concerning the problems with which they are dealing and the success or lack of success they are experiencing in endeavoring to deal with them. Since many of the problems and challenges which now are being posed for school systems are metropolitan in scale and since their solution requires cooperative action throughout the metropolitan area, many kinds of data must be collected on an area-wide basis if a metropolitan intermediate district is to function effectively to serve the long-range interests of the metropolitan area as a whole. The establishment of a metropolitan unit would do much in and of itself to assure the collection of necessary and useful data on an area-wide basis, but even so it will be desirable to identify the collection of certain kinds of data as an explicit responsibility of such a unit, mainly because traditional and present data collection practices generally have failed to provide adequate data for educational evaluation and planning. This is particularly true in connection with the need to obtain educational data which deal with the interdependence among individuals and institutions in the metropolitan area and which draw particular attention to developments involving the provision of equal educational opportunities[34] and the relation between education and the quality of human life in metropolitan society. One particularly crucial activity of this kind, and one which a metropolitan intermediate district would be uniquely well-situated to carry on, involves the development and refinement of measures—now often termed "social indicators"—which assess how well the schools are achieving the goals for which they are responsible in a modern society as well as the nature of the inputs which affect their capacity to achieve these goals;[35] by collecting such data, an intermediate metropolitan district could move us much closer toward the goal of providing equal educational opportunities for all the people of the metropolitan area.

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*This recommendation, however, should not be interpreted as denying that it may prove preferable to consolidate all present school districts in Great Plains SMSA's with less than 100,000 population (St. Joseph, Sioux Falls, and Dubuque) into single area-wide school districts.

[32] Frederick C. Brechler, *Patterns of School District Interrelationships: A Study of the Kansas City Metropolitan Area* (Kansas City, Missouri: The Center for the Study of Metropolitan Problems in Education, 1967), (in process).

[33] Luvern L. Cunningham, "Organization of Education in Metropolitan Areas," in Robert J. Havighurst, *Metropolitanism: Its Challenge to Education*, *op. cit.*, pp. 91–122.

SUMMARY OF IMPLICATIONS FOR EDUCATION AND FOR SCHOOL DISTRICT ORGANIZATION IN THE METROPOLITAN AREA

In accordance with the need to conduct certain educational functions on a metropolitan area-wide basis in order to solve the critical emerging problems of metropolitan society, officially designated metropolitan intermediate districts should be formed which should have the authority to perform the following functions for semi-independent member school districts in the metropolitan areas of Iowa, Missouri, Nebraska, and South Dakota:[36]

1. Represent and act on behalf of member districts in working with other area-wide and multi-jurisdictional organizations and institutions such as metropolitan planning commissions, highway departments, park and recreation agencies, social welfare departments, urban renewal departments, universities, and state employment units to achieve comprehensive planning and action aimed at developing the human and physical resources of the metropolitan area.
2. Raise a portion of revenues for public education through an area-wide tax set at a level high enough to ensure that realistic sums of money are

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[34] As Marvin Alkin recently pointed out in a paper on "Revenue for Education in Metropolitan Areas":

> State aid to education has failed to equalize educational opportunities in the past because of an unwillingness to recognize that districts have varying educational needs. This failure has had several effects, especially in metropolitan areas in which the needs requirements are so diverse. What is needed is an adequate measurement of need. Educational need must be recognized as a routine part of the description of school districts, and this can only occur if a satisfactory tool of assessment is developed.

(in Robert J. Havighurst [ed.], *Metropolitanism: Its Challenge to Education, op. cit.*, p. 147.)

[35] Daniel U. Levine, "Using Social Indicators to Assess Priorities in Metropolitan Planning for Education," unpublished paper available from The Center for the Study of Metropolitan Problems in Education. University of Missouri—Kansas City.

[36] Legal difficulties might make it necessary, however, to restrict the intermediate districts proposed herein to those parts of the nation's metropolitan areas which lie within the Great Plains States.

available for high quality educational programs for every boy and girl in the metropolitan area and that local communities or member districts are not unable to provide adequate educational opportunities due to special difficulties they may encounter in obtaining revenues to operate their schools. At the very least, therefore, a metropolitan taxing authority for education would be expected to reverse the inequitable pattern now existing in many of our states that provide funds to local school districts in such a way as to favor suburban school districts over central city districts which face the most difficult educational problems and hence have the greatest need for additional state aid.[37]

3. Initiate and implement programs to reduce social-class stratification as well as racial and ethnic segregation in the schools of the metropolitan area.
4. Ensure that teachers and administrators in predominantly low-income schools are paid at least as much as or more than their colleagues in predominantly middle-income schools and otherwise act to improve the quality of the instruction staff in schools serving large numbers of students from low-income families.
5. Employ specialized personnel and develop and sponsor instructional projects designed to make school curricula more challenging for students in all parts of the metropolitan area and more relevant for helping them solve problems which are of immediate concern to modern youth.
6. Develop and implement projects to introduce and provide instruction related to the improvement of human and intergroup relations in classrooms throughout the metropolitan area.
7. Collect area-wide educational statistics and develop improved measures to assess the quality of the schools and determine how well they are functioning.

Based on the recommendation of other consultants to the Great Plains School District Organization Project, additional functions dealing with educational research or other services that require highly specialized personnel and expensive facilities undoubtedly will be identified as being appropriate to be carried out by an intermediate unit which operates on the scale of the metropolitan area. The analysis in this paper, it should be re-emphasized, has been concerned strictly with the implications for school district organization of educational imperatives which arise from or are associated with the problems we face in our heavily urban and increasingly metropolitan society. In this context attention was given but by no means limited to a pivotal crisis which two perceptive students of our society recently described as being "... the fruit of an inner contradiction in American life—of promising equality and opportunity for all while systematically excluding most

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[37] Seymour Sacks and David C. Ranney, "Suburban Education: A Fiscal Analysis," in Marilyn Gittell (ed.), *Educating an Urban Population* (Beverly Hills, California: Sage, 1967), pp. 60-76.

segments of the poor, especially the Negro poor."[38] But the problems associated with low-income groups and minority groups are only part of a larger pattern wherein the interdependence characteristic of the metropolis, as pointed out in a recent publication released by Urban America, Inc., has been paradoxically accompanied by a pervasive separation between people and places in the metropolitan area:

> Work was separated from residence, stretching transportation facilities sometimes to the breaking point. Cities were separated from suburbs, and suburbs from each other, by a thickening tangle of political jurisdictions. Families of lower income were separated from the well-to-do; it cost more to live farther out. And—partly as a corollary of economic distance, but only partly—Negroes were separated from whites.[39]

This pervasive separation among people in the metropolitan area is no small or unimportant matter. More than any other cause, for example, the lack of contact and the consequent disparity in perceptions which accompany separation between social groups explain why the crisis of race and poverty is becoming so explosive in metropolitan areas like St. Louis, Kansas City, and Omaha. How else can one account for the fact that the public opinion polls show white Americans have become annually a little more favorable toward integration and sympathetic to the traditional goals of civil rights and at the same time more rejecting of policies and proposals which might prevent the emergence of two separate sub-societies in destructive disequilibrium next to one another? How else explain why black Americans believe that whites are becoming increasingly racist whereas in reality the drift of opinion has shown a consistent forty-year movement toward social equality? How else explain why many suburbanites who believe in equal rights for all Americans are able to persuade themselves that they need to rush out and purchase rifles to defend their homes against imaginary invasion by faceless Negroes from the central city?

Whether the schools in the Great Plains States will act constructively to discharge their responsibility to participate in metropolitan development will depend, in good measure, on whether the metropolitan educational system can be organized on a more rational basis than the present pattern in which a multiplicity of local and fragmented school governments serves to compound rather than minimize separation among groups of people in the metropolitan area and otherwise hampers rather than facilitates the cooperation needed to maintain and improve the quality of life in the metropolis.

VARIATIONS IN THE CHALLENGE TO METROPOLITAN EDUCATION IN THE GREAT PLAINS STATES

Residents of Iowa, Nebraska, and South Dakota are fortunate in the sense that the social problems of the metropolitan areas in these states are not so difficult to deal with as they are in some other states. While metropolitan areas in the Great Plains states tend, for example, to be fairly far along in their evolution and to be confronted with the typical problems characteristic of metropolitan development in the United States, many of the cities with 25,000 or more population in the four states are above the national average on median income for such cities and below the national average on density and on percent of nonwhite residents who often face the special problems generated by racial and social discrimination and poverty, (Table 6). With the exception of the three or four largest cities and SMSA's in the Great Plains Region, therefore, the people of Iowa, Missouri, Nebraska, and South Dakota are in a relative advantageous position to deal with emerging urban problems before they become more nearly unmanageable. In restructuring the metropolitan educational system along more rational lines, it would be well to be realistic about the situation and trends which exist but to avoid exaggerating them out of proportion in a way that might lead people to become immobilized or incapacitated by the magnitude of these problems. Just as William L. C. Wheaton has advised educators in the Rocky Mountain States, we should recognize that

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[38] Lawrence Witmer and Gibson Winter, "Strategies of Power in Community Organizations" (a research paper prepared for the Consultation on Community Organization, University of Chicago Center for the Urban Studies, April 12-13, 1968), p. 65.

[39] *Crisis: The Condition of the American City* (Washington, D. C.: Urban America, Inc., 1968), p. 3.

> . . . too often we read the national publications about these dramatic problems and become deluded into believing that our cities or our metropolitan areas face identical problems. In fact, this is not the case. Let me illustrate this point. Five years ago I visited with the planners and public officials of a great mid-west metropolis which then had 1½ percent of its population Negro. That city was acting in the same fear . . . that now characterizes Washington, D. C., Baltimore or Philadelphia, where nearly half of the central city population is Negro. . . . this metropolitan area believed it had a major problem when in fact it had . . . [an] entirely manageable problem.[40]

There are other ways, too, in which the situation in Iowa, Missouri, Nebraska, and South Dakota tends to be relatively favorable with regard to the need to organize education and other public as well as private services in a way that can maintain and enhance the quality of life in the metropolitan area. Only St. Louis and Kansas City, for example, have populations larger than one million, and the number of people residing in the Missouri portions of these metropolitan areas is considerably less than is true for the two SMSA's as a whole. All but two of the remaining eleven SMSA's in the Great Plains States had populations less than 300,000 in 1960, and only three had metropolitan populations greater than 200,000.

Thus the problems of metropolitan developments in general and metropolitan education in particular in the Great Plains States are not generally complicated by the difficulties and complexities encountered in the nation's largest metropolitan areas which have populations of several million people. Due to the fact that it becomes increasingly difficult and sometimes seemingly impossible to communicate information adequately and to coordinate

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[40] William L. C. Wheaton, "Urban and Metropolitan Development," in Edgar J. Morphet and Charles O. Ryan (eds.) *Prospective Changes in Society by 1980* (New York: Citation, 1967), p. 140.

TABLE 6

1960 Decile Rankings on Median Income, Percent Nonwhite, and Density among American Cities of 25,000 or more of Iowa, Missouri, Nebraska, and South Dakota Cities of 50,000 or more Population.

State	City	Median Income	% Nonwhite	Density
Iowa	Cedar Rapids	7	3	1
	Council Bluffs	4	2	3
	Davenport	6	3	0
	Des Moines	6	3	0
	Dubuque	6	5	2
	Iowa City	3	0	4
	Sioux City	3	3	0
	Waterloo	6	5	1
Missouri	Independence	6	2	5
	Kansas City	4	7	3
	St. Joseph	2	4	2
	St. Louis	2	8	9
	Springfield	1	4	1
	University	9	1	9
Nebraska	Lincoln	4	3	5
	Omaha	6	6	7
South Dakota	Sioux Falls	4	2	3

Source: Jeffrey K. Hadden and Edgar F. Borgatta, *American Cities: Their Social Characteristics* (Chicago: Rand McNally, 1965).

social activities effectively as political units grow to exceed an optimum size, many political scientists and other knowledgeable observers who study these questions have concluded that the ideal population of a metropolitan area should not exceed about 500,000 people. In order to gain sufficient benefits from the division of labor and technological advances which make possible economies of scale in modern society, on the other hand, most scholars tend to agree that it is desirable to have a population of at least 100,000 in the metropolitan area. From this technical point of view, therefore, most of the metropolitan areas of the Great Plains States even have some room to grow before one would expect that cooperation to solve the emerging problems of metropolitan society might be inordinately difficult to achieve.

In recent years, similarly, students of metropolitan education have tended to come to the conclusion that school district units which perform most educational functions at the local level lose efficiency and flexibility in serving student populations much greater than 40,000 to 50,000 pupils.[41] Since even intermediate metropolitan school districts in the Great Plains States generally would not exceed these figures in total pupil enrollment, the prospects for effective area-wide planning for and coordination of educational services in these states would appear to be correspondingly good.

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[41] E.g., Ronald F. Campbell, Luvern L. Cunningham, and Roderick F. McPhee, *The Organization and Control of American Schools* (Columbus, Ohio: Merrill, 1965); Edgar L. Morphet, Roe L. Johns, and Theodore L. Reller, *Educational Organization and Administration: Concepts, Practices, and Issues* (Englewood Cliffs, New Jersey: Prentice-Hall, 1967); Austin D. Swanson, *The Effect of School District Size on School Costs* (New York: The Western New York School Study Council, 1966).

Because most of the metropolitan areas of the Great Plains States do not exceed a size that makes their problems seem relatively unmanageable, many of the general challenges generated by urban growth often are not treated with the urgency justified by their present and potential impact, and so, too, opportunities for metropolitan area planning and coordination tend to be similarly neglected or postponed. Somewhat paradoxically, on the other hand, it is precisely these metropolitan areas which have populations of approximately 100,000 to 200,000 people that might be most successful in avoiding the problems of a difficult future by recognizing and acting on their relatively advantageous position to implement plans for metropolitan planning and action.

In addition to the emerging problems of metropolitan society which have been described at some length in preceding sections of this paper, the particular challenges which tend to be characteristic of moderate-sized metropolitan areas such as exist in the Great Plains States appear uniquely suggestive of metropolitan responses which coordinate the work of the educational system and other social systems throughout the metropolitan area. In metropolitan areas of this relatively ideal size, for example, it generally is still possible to think in terms of maintaining and/or revitalizing the central city as a cultural and economic resource center easily accessible and available to all the people of the area without the astronomical expenditures required and the nearly insoluble administrative burdens confronted in larger SMSA's such as New York and Chicago. Most of the metropolitan areas of the Great Plains States, similarly, do not have populations larger than can be served most economically and adequately by single administrative units respectively providing or sponsoring modern medical and medical education services, outstanding library collections, regional post-secondary vocational and technical training, high quality community college programs, and other county or area governmental services operated at or near a central location. Through comprehensive as opposed to single-function planning and coordination, moreover, each such service would greatly benefit from area-wide cooperation with metropolitan school district units (either single or intermediate districts), and cooperation of this sort in the metropolitan areas in the Great Plains States thereby could make it possible to move forward at a time when government officials and laymen in the largest SMSA's will be fighting hard to maintain the present state of social and economic well-being.

Reviewing the differences which exist in Great Plains SMSA's such as St. Louis, Kansas City, and Omaha on the one hand and St. Joseph, Sioux Falls, and Dubuque on the other, it is reasonable to conclude that after taking steps to provide certain specified educational services (see above) on an area-wide basis, educators may need to work toward the reduction of the size of the central city school districts in the larger metropolitan areas and the establishment of single metropolitan districts in the smaller ones. Whichever alternative may be called for in a particular metropolitan area, moreover, decisions must be made explicitly in accordance with the need to reduce barriers that separate groups of people, to provide for socioeconomic diversity in each areal unit, and to generally work to devise structures which can facilitate solutions to the most important emerging challenges in modern society. In responding to metropolitan area-wide challenges, therefore, in a sense educators will be acting parallel to and hence congruent with the actions and suggestions of other government officials and scholars who necessarily are asking themselves how the largest SMSA's in the United States can be reconstituted into optimal-sized units, how the smaller ones can be consolidated into metropolitan governments, and in what ways moderate-sized metropolitan areas can be recognized in various tiers or levels of government units to best serve the welfare of the people who live in them.

A NOTE ON ORGANIZING SCHOOL DISTRICTS LARGER AND SMALLER THAN THE METROPOLITAN AREA

Our attention in this paper has been with the question of how large school districts should be if they are to play their proper role in the development of the metropolitan area. Our conclusion has been that to conduct certain specific educational functions, intermediate districts should be formed which serve the entire metropolitan area in SMSA's no larger than those which exist in the four Great Plains States of Iowa, Missouri, Nebraska, and South Dakota. This conclusion in no way conflicts, however, with the recommendation of others who believe that it may be desirable to organize intermediate districts larger than the metropolitan area, nor does it in any way suggest how large a territory or how many students should be included in the member districts which make up the intermediate district.

On the first point, it is relevant to recognize that the influence of the metropolitan area or the large city in the United States tends to extend beyond the territory included within the county or counties which the Census Bureau officially designates as part of a Standard Metropolitan Statistical Area. Within this larger territory, as noted in the discussion of the Functional Economic Area (FEA) in another paper prepared for the Great Plains School District Organization Project,[42] are many people who identify with the metropolitan area or its central city and who are almost as interdependent with the metropolitan population as are the inhabitants of the SMSA proper. Except perhaps in the very largest and most populated SMSA's, this coalescence of a metropolitan and non-metropolitan trading network around an established urban center tends to take place within a maximum of one hour's travel time from the limits of whatever city is being considered.

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[42] Ellis G. Hansen. *op. cit.*; Karl A. Fox, "Functional Economic Areas and Consolidated Urban Regions of the United States" *Social Science Research Council Items* (December, 1967), pp. 45–48.

One alternate way to characterize demographic patterns and trends in the United States is to view the spatial order of the United States as basically constituting "an urban field." Like the SMSA and FEA (Functional Economic Area), according to John Freidmann of the Ford Foundation and John Maller of M.I.T., "The idea of an urban field is similarly based on the criterion of interdependence."[43] But rather than being artificially delimited by metropolitan boundaries, the urban field

> . . . represents a fusion of metropolitan spaces and non-metropolitan peripheral spaces centered upon core areas (SMSA's) of at least 300,000 people and extending outward from these core areas for a distance equivalent to two hours' driving over modern throughway systems (approximately 100 miles with present technology). This represents not only an approximate geographic limit for commuting to a job, but also the limit of intensive weekend and seasonal use (by ground transportation) of the present periphery for recreation. A system of urban fields delineated by this criterion without attempting to draw a dividing line between metropolitan cores that are less than 200 miles apart . . . [contains between] 85 and 90 percent of the total United States population . . .[44]

Recognizing that both the Functional Economic Area and the urban field are attempts to identify concentrations of people who are clearly interdependent upon and significantly interact with one another, our analysis of the problems of the metropolitan area and of the implications of these problems for school district organization probably could be applied with a good deal of validity to enlarged geographic areas as much as one or two hours' driving time from many of the metropolitan areas in the Great Plains States. We see no objection to this, and we wish further to note that doing so might have the additional advantage of making it possible to provide the modern educational services needed by semi-rural populations which an editor of *Fortune* has aptly described as being involved in the process of urbanization to a degree comparable to that experienced by their counterpart within the confines of the metropolitan area:

> The U.S. in the 20th century is an urban nation, not in some superficial sense of its population densities, but in the fundamental sense that it is made up of diverse people, pluralistic in belief and habit, who live by exchanging the products of very different and highly specialized skills. A high degree of interdependence among heterogeneous inhabitants is the key characteristic of the modern city—what sets it apart from the typical agrarian society where each family unit, approaching economic self-sufficiency, tends to work and to live in approximately the same way as every other family unit. Even our farmers today are specialists—and in that fundamental sense share the urban characteristic of almost total interdependence with other farmers and with non-farmers. Our actual lives are lived in huge organizations joined by intricate market, transportation, and communications systems.[45]

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[43] John Freidmann and John Miller, "The Urban Field," *Journal of the American Institute of Planners* (November 1965), p. 314.

[44] *Ibid.*

[45] Max Ways, "The Deeper Shame of the Cities," *Fortune*, January, 1968.

On the second point concerning the size of the member units which should make up an intermediate metropolitan district, we wish to emphasize that the establishment of metropolitan area-wide intermediate units need not mean that it is undesirable to decentralize a variety of school decisions which are now made in the central offices of relatively large school districts; it does mean that certain actions, such as those designed to encourage destratification and desegregation in the schools, should be initiated and implemented by an area-wide school district authority, while others, such as those involving the selection of an administrator for an individual school, might be delegated at least in part to the citizens in the school's immediate attendance area. During the next few years there may well be a strong thrust toward the decentralization of larger central city school districts such as exist in Kansas City and St. Louis, particularly with respect to groups of schools which serve predominantly low-income, minority clientele groups in the inner core of the city. Among the many reasons for giving parents and other citizens in individual school attendance areas a greater voice in school decisions than they now have is the possibility that doing so would lead to greater parental and hence student support for the efforts being made by teachers and administrators, to a building up of a sense of identity with and pride in local neighborhoods, and to an augmentation of the feeling that people have some control over decisions that affect their lives. All three goals are important ones in an impersonal society in which citizens who are not sharing in the general prosperity of an industrial economy can easily come to feel that outside forces operate to prevent their children from having equal opportunities in school or society.

CHAPTER 14

NEW CONCEPTS ON THE EDUCATIONAL HORIZON

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It has almost become a cliché to speak of what's new on the educational horizon. We are constantly reminded that we live in a time of change and of unprecedented opportunity. Repetition, however, does not alter the fact that we now **do** have unprecedented technological resources and skills for improving education not only in public schools but also in the broad spectrum of institutions and programs whose purposes are the education of our citizens. Advances in knowledge occur daily, revealing further opportunities and potential for application of new theories, techniques, and materials to the improvement of the learning process. There are both exciting and sobering possibilities for the future. We hear predictions of future uses of chemicals for drastically increasing the capacities of human memory and expanding other metal activity; we can foresee fantastic uses of the computer which could make the school, as we know it, a completely outmoded system for learning. We can easily see, already on the horizon, the process of formal education spanning the period from early childhood throughout the entire lifetime of a citizen, not as a luxury but as a necessity. In the 60's we spoke of job-retraining, but the future will demond *continuous* vocational re-education, both for those in skilled trades and for those in professions. Skills in all fields will be continually obsolescent as new developments require different specializations. Even today the parent who says, "I hope Johnny will be a doctor, or a teacher, or a plumber when he grows up" is talking about vocations which will not be in existence in the near future in the same sense in which they exist today.

While new advances multiply and take directions which stagger our imaginations, there is much unfinished business to complete which looms large on today's educational horizon. Much of that which needs attention we have "talked about" for a long time, and are only now beginning to realize in actual practice. We are just now becoming more able to bring theory and practice into harmony, to make the structure match the blueprint. Our ideas about the purposes of education and the goals of the school are taking on much more clarity, and we have the capabilities needed to make the experiences offered by the school consistent with our stated aims and purposes.

The future educational picture can be discussed most clearly by examining four interrelated dimensions: (1) Curriculum, (2) Teacher Education, (3) Administration, and (4) Research and Development. In action terms these could be called "What to Teach," "How to Teach," "How to Organize," and "The Why of It All." The first three are old categories, but each is permeated with new concepts. The emerging dimension of Research and Development has caused a flurry of vigorous activity in each of the other areas. The following laser-beam analogy makes these relationships more understandable: a new kind of instrument, the holocode, can record impressions of objects in their three-dimensional forms, but these impressions are only scattered unrelated print spots until a laser beam is directed toward the film, causing the fuzzy dots to take on meaningful shapes which can be viewed from all sides. R & D acts as the laser beam for education. It provides the sharp light of investigation and evaluation which pierces through the other dimensions of education, bringing all parts into focus and into clearer relationships with one another.

It would be impossible to list or to discuss adequately the individual innovations in education today. Much is happening in reasearch and experimentation. Only a few examples will be used to illustrate the larger trends in the direction of education to which the innovations are contributing. Fundamental to a consideration of any developments in education are certain assumptions which form the framework for consideration of the four dimensions to be discussed. These assumptions are:

1. Each individual is a unique and worthy person in his own right.
2. The individual is a total organism, active, growing, and becoming a human self through the process of interrelating and interacting.
3. Creativity and uniqueness rather than conformity and uniformity are the values most appropriate for nourishing human beings in *process*.

Curriculum Development

An avalanche of new facts has forced us to consider the basic aims of the total curriculum and the objectives of its separate parts. The old talk about defining goals in behavioral terms is gradually being implemented.

Whitehead in *Aims of Education* expressed it this way: "A certain ruthless definiteness is essential in education. . . . One secret of a successful teacher is that he has formulated quite clearly in his mind what the pupil has got to know in precise fashion." While we don't wish to imply that the teacher "knows the answers" and sets the limits on learning, we do believe teachers and pupils must have clear purposes. When people know what to do and what is expected of them, they function better.

Curriculum development in the future will be influenced by the realization that children will not live in today's world tomorrow. We cannot prepare them for the future by trying to store them with knowledge. We will give up trying to "cover the ground" by the end of a school term. We will give up "covering the textbook." We will certainly give up "The Textbook," as we know it today, but we must also change the mind-set that is textbook-oriented.

The curriculum will be idea- and process-centered. The structure of a discipline will provide the framework for the development of an understanding of broad concepts. Even as curriculum developers work with the ordering of content into sequences and hierarchies, it is naive to think that there is one best or only order for learning the material. There must be many varieties of programs and organizational patterns. Tomorrow will bring not a national uniform curriculum, but an even greater diversity in programs as nationally developed materials are tailored to local use. Teachers and pupils will determine which programs, or parts of several programs, are most appropriate for the unique needs of a school system or class. This assumes a level of competency which will be essential for the professional teacher.

This does not mean, as it did in the past, that each school will build its own curriculum and write its own curriculum guides. These "guides" have all too often been a lockstep substitute for a singe-text approach. They have too frequently been built by borrowing from one another rather than as responses to the needs of the children in a particular community. New curriculum materials will be available which will be sequentially planned to enable children to expand an idea, to grow in their power to understand, apply, and interrelate fundamental concepts of a discipline. Efforts in this direction have been made by the National Science Foundation which spent sixty million dollars developing new approaches to teaching math and science. Even now a complete K–12 sequence is not available, but these are in various stages of preparation. The National School Health Study is developing a K–12 program which shows promise of filling this curriculum need.

The application of specific behavioral objectives will enable us to apply a systems concept to instruction. There is nothing mysterious or complicated about this. It simply means we will be more skillful at changing traditional objectives into measurable goals. We will be able to define the objectives of instruction for a given person for a given subject, and then we will utilize in a rational manner all the tools available to meet those objectives. We will be able to evaluate much more intelligently and to use our outcomes as means for shaping subsequent procedures, systems, and environments. Systematic evaluation will be essential for every facet of education. The systematic application of evaluation techniques will be a reality of the future. We will not think of evaluation as a final activity or a single criteria, but we will be able to apply multiple criteria to that which is being evaluated.

Stufflebeam is probably on the growing edge of new thinking evaluation when he says evaluations must fit the kinds of educational decisions to be made at each point. The decisions are classified as 1) planning, 2) programming, 3) implementing, and 4) recycling. Consequently there are four kinds of evaluation, one for each decision step; 1) context evaluation, 2) input evaluation, 3) process evaluation, and 4) product evaluation. The adequacy of the evaluation must also be appraised in terms of validity, timeliness, credibility, etc.

A second future development in curriculum will be more realistic provisions for active learning. The curriculum should provide opportunities for pupils to relate ideas from different disciplines to the real problems of life. This requires an active participation in an idea-centered curriculum. The concept of an idea-centered curriculum leads us to acknowledge the necessity for the learner to participate in setting goals, planning steps toward his goals, following through, and evaluating his learning experiences. When we act on our belief that knowledge cannot be "covered," that remembering facts is not an education, that a person cannot really have an idea without developing it, then we will accept a partial reversal of roles between teacher and pupil. We may at last recognize the responsibility of the teacher as a coordinator, a facilitator, an expeditor of learning (to use Carl Rogers' language).

We will someday stop behaving as though adequate learning can occur in a curriculum with an organized graded structure or with a certain number of units to be completed. Some steps in this direction have already been made through the varied approaches to non-graded classes, multi-age classrooms, modular scheduling, etc. The North Central Association recently announced that it would no longer require the completion of a specified number of Carnegie Units. With the increased use of flexible scheduling, other alternatives for high school graduation will now be acceptable. This has been too long in coming and even now will affect too few high school graduates, but it is a sign of future directions.

The directions of the future will certainly lead us to provide for individualizing instruction in a variety of ways. Students will be permitted to travel at their own speed not simply through programmed learning, but through materials and facilities which allow for a depth of independent concentration and absorption in a discipline before the student moves on to something else. Individual and independent learning are the emerging realities of tomorrow's education. This will require capitalizing on technological resources in most imaginative ways. The use of the computer for individual instruction will require imagination and creativity in preparing mateirals which have, up to the present, not been demanded of educators. Already there are exciting reports of the use of computers in teaching beginning reading and math to children in Palo Alto; the use of California computer facilities by children at computer terminals in Kentucky and Mississippi shows the application of this technology in reducing the gap between the rural disadvantaged schools and a university lab school. We are still in our infancy in knowing how to utilize these tools; there is a danger that, as we become enamoured with our machinery, we will find ourselves working for the machine instead of making it work for us.

Continuous education will be another force of the future. The concept of a continuous-learning society will be an overriding necessity. Even now the need for continuous education is recognized as Junior Colleges are springing up across the nation at a number estimated to be about one a week; and in New York plans are under way to provide for public education on a voluntary basis to all 3- and 4-year-olds by 1974. Soon the practice of continuous life-long learning will be commonly accepted. Already highly successful adult education is sponsored by business and industry as well as by schools. Some school systems are reported to have more students enrolled in adult education than in their regular day school program.

Teacher Education and the Professional Teacher

The second major area which will be necessarily different in the near future is teacher education.

Teacher education programs are changing and will continue to change in the following directions:

1. Preparation will no longer consist of a specified number of course hours, with "student teaching" as a culminating experience, but will be viewed as a teacher education continuum with participation in teaching experiences in the public schools planned early in the college program. The separation between pre-service and in-service education will disappear. An internship period and in-service professional education will not be separate parts, but will be a continuation of a program of professional development which will be an expected part of the life of the professional teacher. Teaching will very soon be a full-time professional job with year-round responsibilities.
2. The education of teachers requires thorough understandings of academic disciplines as well as professional preparation for teaching. Academic departments and teacher educators must work together as a team sharing specific responsibilities for the best possible preparation of teachers. A teacher needs to be a well educated person with a breadth and depth of knowledge which is his social heritage. He also must have professional understandings and skills. The old argument between the "what" and the "how" of teacher education is long outdated.
3. As education in the schools improves, institutions which provide teacher education will be forced to evaluate their own teaching methods. The hypocrisy of lecturing to students about "how *not* to lecture *their* students" can no longer be tolerated. The learning environment for prospective teachers must contain the same elements of independent learning, individualized instruction, stimulation for continuous ongoing study, provision for active participation in goal setting and evaluation which are to exist in the desired learning experiences of children they will teach.

4. Teachers in training will be prepared for a new role in the professional team. There should be provisions for individual differences in teaching styles and areas of special competencies for the teacher of the future, just as there must be for the pupils they teach. Teachers will be prepared to become part of an instructional team rather than the sole captains of self-contained classrooms. Teaching will consist of a cluster of roles including sequence planner, script writer, team leader, resource and discussion guide, etc. The staff of paraprofessionals (teacher aides, playground assistants, data secretaries, etc.) will become one of the largest of the service groups.
5. The skills and competencies of teaching will be defined and measured in behavioral terms with technology aiding the development of teacher sensitivity to the affective climate of the classroom. For example, through audio and video techniques teachers can analyze the effects of their verbal and non-verbal behavior in the classroom. Interaction analysis is now the popular term, but these techniques will be refined and will become routine procedures in helping teachers learn to look for ways to improve both the cognitive and affective aspects of learning.
6. The recently enacted Teacher Development Act gives promise of immediate attention to the all-too-slow improvements in teacher education. Don Davies has accepted a key position in the United States Office of Education, and will provide aggressive leadership as this legislation is implemented.

Administration and Organization

A third major dimension which is vital to the success of the emerging programs is the quality of administration and organization in a school system. There are new insights taking shape in the broader field of school organization. Reorganization is taking place within classrooms, within schools, and throughout school systems. On a district-wide level, reorganization is needed not only in rural areas where the population is dispersed over wide geographical spaces, but also in the cities where impractical, illogical district boundaries must be reorganized into manageable units.

There are other stirrings of reorganization as we see the evolvement of Intermediate Units replacing the old county system of educational jurisdiction. There are demands for service and leadership beyond the district limits but below the state level. We are witnessing the development at the national level of what will probably become a reorganization of federal relationships to education—perhaps very soon we will have a separate Department of Education with a representative on the President's cabinet. Even on the international level, through UNESCO for example, there are cooperative efforts to improve educational opportunity and to focus on educational problems which are of international concern. However, the real evidence of improved educational opportunnity must come from the organization for learning within each school.

Administrators must recognize, less verbally and more pragmatically, that schools should be organized for the kind of learning expected to take place. Schools which are closed as soon as the children leave can hardly offer a community image of encouragement to continuous learning. Schools which force students to fit prescribed requirements of time, sequence, and content are denying the necessity of educating unique individuals to the limits of their potential. Administration has to be a means to an end; that end is to facilitate teachers in their work with children. The administration must provide a supportive staff which strengthens new teachers, which provides security for the innovative teacher, and which respects and encourages the participation of the teacher in administrative decisions related to instructional goals.

Schools must be administratively planned as learning centers, as self-instruction and inquiry centers. School libraries will be the learning laboratories of the school with slides, records, tape recordings, computer terminals, facilities for listening and viewing. Materials creation centers will also be an integral part of the school plan including audio-visual specialists, artists, and writers who can free schools from overdependence on commercial firms.

The school will be a community school in the broad sense of the word, tied organically to the community through programs which meet practical immediate needs and through a continuous interchange of school to the community and community to the school.

A school administration is often judged by the number of new programs or innovations launched. However, often administrators too hastily introduce new programs simply to heighten their district's reputation as "innovative." For example, the use of computers has made the ideal of flexible scheduling a real possibility. Yet, in one school recently, when a few teachers wanted to group for team teaching, the administrator in that school replied that it couldn't be done because it would upset the computerized scheduling. There are the "instant innovators" who want to do things differently without really changing anything. Administrators must place highest priority on their educational leadership roles. They must act responsibly in the best interests of children without succumbing to pressures and without yielding to irresponsible critics.

Research and Development

The final dimension in the changing shape of education is the research ingredient. This is the emerging "laser beam" which will permeate the entire scope of education. We have come into an era when educators must become respectors of facts and data.

Schools in the future will be devoting a certain percent of their regular budget to research and development of their own. A minimum requirement would be about three percent. One national authority has estimated school systems are now spending less than one-half of one perecnt on research and development.

Julian Stanley has made clear this need for a research orientation: "Every school system probably needs at least one educational-research specialist whose chief responsibility is to study research reports, particularly those published in well-referenced professional journals, and tell interested school system personnel their importance for the pupils. . . . It would seem wise that this resource person not be called 'director of research,' and that his administrative and pupil accounting activities be kept to an absolute minimum." As research and planning become part of the mainstream of the educative process, educators will more readily define their own goals and ask researchers more fruitful questions.

The future may well be in the hands of the *future* planners. (Harold Shane makes a sharp distinction between planning *for* the future and planning the future. He calls the latter *future* planning.) Judging from the number of books, conferences, and projects on predictions for the future, the planners are many in number and include diverse segments of society. The public has become alert to its vested interest in education, Congress is supporting educational research, academic specialists are becoming partners in educational planning, and large corporations representing the publishing industry, the communications field, and research are investing in developing educational products which are future-oriented.

The business of education is a giant concern and is too complex to be the sole responsibility of the school. Other supporting institutions are emerging. The Regional Laboratories provide an illustration of one type of new institution being created. Their responsibility is to find, and organize for use, pertinent research and valid practical procedures for improving classroom practices. They must invent or design a program model, give it preliminary tests, analyze, revise, strengthen and field test. Finally the labs can provide assistance to school systems as the schools test these programs (or products) operationally. The Regional Laboratories have an opportunity and a challenge to be on the growing edge of moving theory and research into its most rewarding classroom applications.

Conclusion

Four dimensions in education have provided the basis for this discussion of future horizons. These four areas are interdependent. One cannot work to improve or change a single area (for example, administration) without affecting the other areas.

We have intended to underscore the broad changes which will undoubtedly mark the future of education: the changing structure of education in terms of time spent in school, classroom organization, teacher roles, re-creation of the content and methods in curriculum, revised administrative and organizational patterns, and provisions for research and development.

Future opportunities in education seem brighter than ever when one reviews the facilities, technical skills, and knowledge now available. But immediate tasks for education, which will "dog our steps" well into the future, are those created by the critical social problems of today. These are the problems inherent in poverty, discrimination, depersonalization, and urban sprawl. Solutions of these problems will be found as weaknesses in education are eliminated through the improvements we anticipate. As we bring resources, even now available, to bear in building diverse, efficient, yet humanizing programs of education, many current social problems will be simultaneously alleviated. The future will not wait for us to solve today's problems. We must use the vision of that future to give us courage and determination to apply tomorrow's solutions to today's problems, and to channel future potential into today's schools.

CHAPTER 15

FIVE TOUGH QUESTIONS

Floyd A. Miller
Commissioner
Nebraska State Department of Education

Editorial Note

The following is a brief of an address delivered by Commissioner Miller in Wilcox, Nebraska, on June 11, 1968. The material represents a synthesis of some of the perplexing questions posed by Nebraska citizens, and the analysis made by the Commissioner. It is included in this publication because of its significance and relevance to the Project, not only for Nebraska, but also for each of the Great Plains States.

BACKGROUND

Nebraska is a large state measuring approximately 430 by 210 miles, or 76,612 square miles in area. It contains approximately 2,100 school districts, 19 intermediate districts known as Educational Service Units, and 26 Economic Development Units involving combinations of whole counties. There are 39 villages and municipalities each with a population of over 2,500, and 588 under this figure. The State's population of 1,411,330 has been fairly constant over the past several years.

Within the State there has been much shifting of population which generally follows the national pattern. In other words, communities of 2,500 or less are for the most part declining in population. Those above this figure, particularly our larger cities, are becoming larger. Along with the population trends which have been mentioned, a recent study of school district census figures of 1967 shows a rather alarming decline in the number of one-year-olds as compared to the number of six-year-olds. At the same time there is a significant out-migration of many young adults of child-bearing age.

Five major problems have emerged out of this mobility of the population, from declining populations in sparsely populated areas, from the out-migration of young adults of child-bearing age, and out of a concern by the people in Nebraska for the future of their State. As they become aware of the facts and have a chance to look at the problems and the issues, there come to the front the following five tough questions:

1. HOW MUCH LONGER CAN NEBRASKA AFFORD TO MAINTAIN APPROXIMATELY 2,100 SCHOOL DISTRICTS?

This number of districts, approximately 1,800 of which are rural school districts, constitutes a waste in dollar power, teaching power, and educational power. With proper planning, giving due attention to communities of 2,500 and school systems of approximately 1,500 students, a school district organization could be built consisting of not more than 125 school districts.

2. **CAN ADEQUATE, STABLE SCHOOL DISTRICTS BE BUILT IN INADEQUATE, UNSTABLE COMMUNITIES?**

Current demographic studies clearly argue that stable school districts should be organized around communities of 2,500 or more. Obviously, there could be geographic and economic factors which would create some exceptions to this general rule. In far too many instances Nebraska school districts are providing sustenance and nourishment to dozens upon dozens of weak Nebraska municipalities. Status quoers have rallied around the cry that this must be done "in order to keep our community." The viability of a community, however, does not depend upon having an administrative school district. There are many small communities in Nebraska which have shown a revival of activity when such a problem as trying to maintain an adequate high school was resolved. The tragic loss or cost of this practice can well be illustrated by using the analogy offered by a patron of one of Nebraska's inadequate districts: "What is going on in our town and school reminds me of the practice of the ancient Greeks who would place their children on the flaming fires of their primitive altars as sacrifices to the Gods."

3. **CAN A SOLID INTERMEDIATE SERVICE UNIT BE BUILT ON A SUPPORT OF QUICKSAND?**

The Educational Service Unit in Nebraska does not include all the counties of the State. From election year to election year a small group can petition that the matter of withdrawing or remaining within the Unit be brought to the people. The solid planning required to make this echelon of organization live up to its potential cannot be achieved. There should be a reconstituting of boundaries of the Service Units based upon a combination of blocks of the 26 Economic Development Units, with all counties being placed within the new district. This would permit an orderly transfer of the functions of certain county offices to the Service Unit and indirectly might provide an answer to the present county structure.

4. **HOW MUCH LONGER CAN NEBRASKA AFFORD THE LUXURY OF 93 COUNTY GOVERNMENTS AND FOR WHOM ARE THESE MAINTAINED?**

All the material related to the previous questions, plus the fact that transportation is now universally considered in terms of time rather than miles, would relate to this question. The time is already past in terms of service rendered and high operational costs for the restructuring of county governments in keeping with the needs and demands of a people living in the last third of the twentieth century.

5. CAN THERE BE ANY RESPONSIBLE AMOUNT OF LOCAL CONTROL IN ANY GOVERNMENT AGENCY WITHOUT A CORRESPONDING AMOUNT OF LOCAL STRENGTH?

Nebraska, as well as every other state, needs to take a sharp look at its definition of local community in terms of the facts of the situation in 1968 and then modify that definition. Without the strength of sufficient tax resources and people, local control in any political subdivision is a myth and a delusion.

These are tough questions. To use a popular phrase, they represent "gut" issues. The facts which relate to them, or perhaps the facts which require that the questions be asked, are a part of the situation. They are not notions and opinions of people with vested interests. They come right out of the soil and the resources and the people.

Sooner or later the people of Nebraska will have to find answers to these questions. Hopefully, they will apply the same kind of imagination, strength, and courage that have been applied during all the years of Nebraska history as the State, which was once considered a part of the Great American Desert, has been transformed into a rich agricultural and industrial state with great promise for an exciting future.

CHAPTER 16

CONSULTANT SUGGESTIONS AND RECOMMENDATIONS TO THE PROJECT STAFF

Ralph D. Purdy
Project Director

The Consultants

W. E. Bishop, Superintendent of Schools, Englewood, Colorado

William Emerson, Superintendent of Oakland County Schools, Pontiac, Michigan

Robert Gilchrist, Director, Mid-Continent Regional Education Laboratory, Kansas City, Missouri

Thomas Quick, Assistant Superintendent of Public Instruction, The State Department of Education, Columbus, Ohio; President, National Education Association, County and Intermediate Unit Superintendents

Arnold W. Salisbury, Superintendent Cedar Rapids City Schools, Cedar Rapids, Iowa; President, The American Association of School Administrators

E. C. Stimbert, Superintendent Memphis City Schools, Memphis, Tennessee; Member Executive Committee, American Association of School Administrators

The Conference

Date: 8:00 A.M., Tuesday, March 12, 1968.

Location: Center for Continuing Education, University of Nebraska, Lincoln, Nebraska.

Purpose of the Conference

More than 50 position papers concerning various educational programs and services have been prepared by Consultants to the Project Office and to the Directors in the four states. Each one contained significant implications for the structure of education (school district organization) to provide these programs and services at a high level of quality for all boys and girls, and to provide them with efficiency of organization and economy of operation. It was intended that these reports by specialists within the several programs and services would be utilized in determining guidelines for school district organization to meet present and anticipated educational needs and objectives.

The judgment, the understandings, the insights and the perceptions of knowledgeable and experienced administrators of national reputation were sought in an effort to give direction to planning for school district organization, and to express value judgments on many of the factors which must be given consideration. Accordingly, a one-day conference was planned, with the above named six administrators invited to serve as special consultants to the Project Staff.

No effort was made to be fully definitive or completely analytical about any topic posed for comment or reaction. Any one or all of the consultants were free to share a comment, a suggestion, an idea, or a proposal which, in his judgment, merited consideration in the planning of guidelines for school district organization to meet the educational needs of today and for the foreseeable future. The statements contained in this report represent individual points of view unless consensus or unanimity is indicated.

COMMENTS–SUGGESTIONS–RECOMMENDATIONS

Needs to be Met

There appeared to be a general acceptance and approval for the statement of "Needs" as prepared by the Project Director.

The major need is to develop an organization which will provide stimulation for self-learning.

Education is primarily concerned with (1) *what to teach*; (2) *how to teach*; and, (3) how to organize for learning. (Education is really concerned with what to learn and how to organize a learning environment. What to teach and how to teach are sound terms only when the educator keeps in mind that the goals are learning goals and not teaching goals.)

There is a danger in communities reorganizing around something rather than organizing for purposes other than to get something done, or in not knowing for what purpose they want to organize.

Quality or Excellence

There are six aspects of quality education:

–Competency of the staff (qualified professionals).
–Levels of practice.
–Breadth and scope of the educational program.
–Providing *ability* levels meaningful to the students. (There are also many other factors.)
–Development of conditions which permit quality (but which do not guarantee it).
–The ultimate test–what happens to the child.

Quality in education is dependent upon the framework for education.

Quality in education has primary dependence on quality of staff. Selection should be based on: (1) academic preparation; (2) experience; and, (3) some personal qualifications that can be identified in interviews. Management recruits personnel on this basis, with the final decision being made on their best professional experience and judgment. Another criterion is that the staff member accept the philosophy of the school system and be willing to try to achieve its goals.

The only way to achieve quality is to have day-to-day contact between the practitioner, the consultant, and the *Ph.D.* specialist. (A high-level expert is needed, but the Ph.D. does not necessarily guarantee it.)

Quality in education means the providing of opportunity for every child to make of himself what he is capable of being.

Quality education provides educational opportunities at the level where the child can succeed.

We need evidence that the individual student has profited from going to school. Then we can determine the quality of that education.

If you cannot measure it by paper and pencil test do not ignore it, but use best evaluation instruments possible. In some instances you must rely on judgment only.

Elementary Attendance Center

The best elementary attendance centers are those units which, with a given number of students and a given number of teachers, can best be related to each other.

The desirable elementary school is dependent upon the services available to it.

Beware of talking in terms of grades and of sections per grade. The trend is toward the non-graded school. Numbers are secondary to programs and services, although an important consideration in relation to the cost factor.

Optimum, minimum, or maximum enrollments are meaningful when you have a nice, even distribution of people. It has limited value in sparsely settled areas.

Time/distance is the most decisive factor.

Suggested proper travel time—30–45 minutes in almost all areas.

Size and time has nothing to do with quality, only with economy.

Each attendance center should be so established that it will have:
One full-time speech correctionist
One full-time social worker
Guidance and librarian services
Other services as may be appropriate

Build the attendance center that can provide these services within the building. If you cannot (sparsity factor), then put these people on the road, even though it decreases their efficiency.

Four to five sections per grade makes a good school, but it does not guarantee quality. Four to five sections per grade schools generally provide more services and better programs than three section schools. There will be no less than four sections per grade schools where density of population will make it possible, or the equivalency in numbers of pupils.

Factors over which you have no control may determine what you may have to do.

Secondary School Attendance Center

Provide the programs that you can in the attendance centers, but you will have to have other centers for comprehensive educational opportunities.

Don't get locked in by classifying education as 8–4, 9–12, 7–12, etc. Keep it open for inevitable changes that are already in progress. Keep it general, such as secondary education.

You can still personalize the school, even if it is large, by the different ways you break it down.

Each secondary school attendance center should enroll 500 or more students, or expect to provide decreased opportunity at greatly added cost.

Each secondary school attendance center should offer as much vocational education as can be offered with good programs and without excessive cost.

In some situations it would be advisable for the legislature to support more programs even if it cost considerable more money.

If vocational education were provided in secondary attendance centers only, it would result in too many shops in some areas, with limited equipment, and no programs in many needed areas.

In the more sparsely populated areas, more of the vocational programs at the secondary level will have to be provided in the area vocational centers.

Parents will permit their children to go as far as they know the road.

Resident schools should be approved for very sparse areas. In many communities this is already being practiced, with the students staying in homes at the high school center.

Experience has indicated in some areas that the parents will let the pupils live in dormitories after they have dropped out of school. Why let them become drop-outs before providing or approving resident centers for them?

Very large high schools may be comprehensive. Truly comprehensive secondary programs must be multi-district, or multi-attendance centers in high enrollment districts.

Organization

The major responsibility is at the local attendance levels, not at the administrative or intermediate levels.

Organization must not be the tail that wags the educational dog.

Structure, or school district organization, is concerned with making possible the best conditions for learning, based on what should be taught and how it should be taught.

Organization must bring together three levels of professional personnel. One is the practitioner at the local level; one is a clinical person at the consultant level, which may be at the local or intermediate level; one is the Ph.D. specialist, primarily at the intermediate level. The latter two might be the same person.

Organization will bring the consultant and Ph.D. specialists into daily contact with the practitioner. Therefore, this person must be at the local and/or intermediate level, not at the state level.

Organize from the top down, using travel criteria, cost criteria and neighborhood criteria. Then allocate educational functions and plug these in from the bottom up. First, the state education agency serves the whole state. Second, create area educational service districts, anywhere from seven or so to 15–19 per state. Then, put together everything you can put together politically as long as ethical and neighborhood interests will coincide. Remember, the local people do have a real and valid concern about the kind of show their kids go to five days a week.

Schools should be organized to meet the behavioral goals of education. Administrative responsibilities occur at the local level. This includes the whole management team within the local school district.

The administrative local level is the local school district regardless of size. Optimally this would be the number of kids you can get together without having to spend more than one hour to get them.

Conditions that would not make for optimum educational opportunities for all children *should not be permitted in suburbia.* It should be noted that many suburban communities suffer from the homogeneity of their student bodies.

The new concept of administration is to have not just an administrator, but an administrative team. He must have the necessary people to help him to do what he has to do. This means a team approach, which is the new scientific approach to educational leadership.

There are too many "overhead" costs in the way we have broken down our pattern of school district organization. The socio-economic area could be the administrative district, with major delegation of responsibility and decision making to the heads of the various attendance centers in their respective communities. (Some consultants disagreed, saying that districts can get too big.)

There should be something in the report that joins theory and practice in administration at each echelon. It should help to clarify the kind of leadership that is needed for today's schools.

The role of the administrator in the intermediate unit is primarily one of helping the administrator in the local school district to do better in the interacting of units with each other. It is a coordinating function and service.

The new era in school administration places emphasis on human relations rather than on managerial functions. It is working with people, with materials of education, with ideas, and in setting the climate for the learning process.

The Area or Intermediate District

The three echelon organization system was unanimously recommended by the consultants.

The breadth and scope of both programs and services for today's schools necessitate the practical flexibility made possible through the intermediate unit.

A preliminary study prepared by Dr. Emerson indicated the following:

1. Iowa and Nebraska have 16 and 19 area educational service centers respectively.

2. In Missouri it would not take more than 45 minutes to get to any one center.
3. Use the area educational service agency as the tax base for all educational functions served by the AESA.
4. The state education agency should serve all of education through the area educational districts; or, all functions served the area district.
5. Then put everything together at the local level that can be put together politically, retaining as much community interest and neighborhood interest as possible. Local people do have a real interest and a real concern.
6. Design structure on the basis of (1) travel time; (2) cost criteria; and, (3) some neighborhood criteria. Then, allocate educational functions between local and intermediate units where they can best serve kids and get the most for each dollar.

Kansas is trying to set up an intermediate district under the State Board of Education. Community and junior colleges would be under the same area board.

Area districts are essential to provide communication and coordination within the several programs and services.

The area educational service districts will be the agency, in most instances, to work with institutions of higher education, with research organization, and with the Regional Research and Development Laboratories. There are nine research and development centers located at major universities. There are 20 regional educational laboratories engaged in development work. The target of the labs is to improve instruction in the classroom whereas the R & D centers do more research of a basic nature.

The area educational service district should be a primary tax base for education (general agreement). One consultant suggested that it be limited to the function served but not limited to only one tax base (more than just the property tax).

Data processing equipment should be an area service.

The AESA will provide for a concentration of special education programs when profitable and necessary.

Programs and services in one area may be different from those in another area.

Unless we are careful in the future, the administrative and the management team at the intermediate level will fall flat, because we don't know how to manage their respective functions and responsibilities most effectively.

The AESD should provide some high-powered help for the K–12 programs, and for decision making about these programs at the local school district level. This help must be provided in order to assist in bringing order out of all of the confusion of the many national programs that are now available, and out of all of the pressures that are going to come. The AESD ought to have somebody who can be helpful other than by his authority to assist local school districts in making decisions and in finding resources.

Vocational Education

The term, "vocational education," needs clarification. We can define it verbally, but it is difficult to define it by practice. Occupational education is a more inclusive term, since it includes the total educational program, such as that offered to the boy headed for medical college.

Every school district should provide an adequate vocational program (unanimous agreement).

Vocational education must be a part of the secondary school program. The Federal Vocational Act has already answered this question for us, so why argue about it. These programs will be provided in the high schools and in area vocational school centers. These programs must lead to employability upon graduation or point toward employment entrance.

Multi-school districts will be required to develop vocational programs at a defensible and economical case load level (unanimous agreement).

In the past we have graduated students without saleable skills. We should be ashamed of ourselves. General education becomes real when occupational and general education mesh together. Kids live in their extra-curricular programs, not in the classroom.

The vocational education position paper (Shoemaker) is useful for size and cost factors. We must not think of school organization and vocational education as divorced from the social realities of the metropolitan environment.

Go where the action is to determine what vocational programs should be offered and when they should be offered.

If you have a decent computer system, you can make annual calculations and predictions of employment needs and program requirements.

Vocational and technical education should be under the area board of education.

All secondary school programs are preparation for a vocation.

The program of education ought to fit society. It includes the entire offering—general, vocational and college preparatory. The humanities is a part of all of these.

Without vocational education we haven't kept in touch with the needs of our times.

We don't train a doctor; we train a person to enter training to become a doctor. We don't train a kid to run a big machine; we prepare him to be adaptable to running a machine, to becoming a salesman, to being a bookkeeper, etc. We simply don't know how to do this kind of training at the highly skilled and/or technical level.

The Missouri proposal for five Carnegie units of vocational education in every high school is impractical. It is too little too late. Needs will vary, but small centers will not have the capacity or the capability of meeting them or in changing with the needs. Also, there will probably be too much duplication and too little breadth to the program to meet the needs of either the students or of business and industry. Furthermore, you almost have to go multi-district to develop a defensible and economical case load; and to multi-high school attendance centers in the big cities.

Vocational Education Rehabilitation

Vocational rehabilitation is primarily for the drop-outs, post high school, and adult training and retraining.

Education is a major component of vocational rehabilitation. As such it should be under the State Board of Public Education.

Vocational Education rehabilitation interfaces with the educational programs out of the area educational service center.

There was unanimous agreement that vocational education rehabilitation should be administered by the Area Educational Service District.

Curriculum

Curriculum improvement and development is dependent on the practitioner (the teacher and the department head) having access to consultants at the doctoral level. The Regional Service Center should provide this person.

Curriculum research is dependent on the availability of two types of people: (1) the skilled person who knows educational statistics, the various systematic ways of thinking about and handling statistics, and how to apply them to the instructional environment; and (2) the business and management function and someone who is a qualified operation analyst. Nothing of credit will be done without these two kinds of people.

The State Departments of Education, the colleges and the universities, and the Regional labs must have some of the developmental personnel to serve the people at the local and intermediate levels.

The second echelon agencies of an area of state and/or regional laboratories ought to be able to provide the qualified and experienced personnel for curriculum research and development (consultant and/or Ph.D. level).

There must be access to a decent computer system (Area Educational Service District).

Increasing attention must be given to how to organize for learning. This means individual prescribed instruction, although all learning should not be on an individual basis.

Education is presently structured for grades and subject matter areas. Some place in the future, perhaps within 10 years or less, we will not be slicing the educational program into subject matter fields as now conceived and practiced. The Great Plains Project should give consideration to the changing curriculum, and to the designing of an organizational structure that will not be out-of-date before its inauguration.

Guidance

Guidance and instruction have tended to pull apart instead of getting together. The guidance person and the teacher need to get together in setting up a learning environment for the student. The guidance person should have a big role in this, but he isn't doing it yet.

There are too many guidance people already—people who are not qualified to do anything. They are not qualified to give and interpret sophisticated psychological instruments, they are not qualified in the field of social work, they are really not qualified to do anything (admittedly a biased position on the part of the respondent).

The orientation should be toward social welfare worker aspects instead of guidance counseling.

It takes a different kind of person to do guidance work in the elementary school. It's a different orientation from secondary school counseling.

The guidance counselor/pupil ratio may be 1:250–300 in the secondary school, and 1:3–500 in the elementary school. (There was no general agreement on this point.)

We should think of a team to serve children, either elementary or secondary. This includes the teacher, the administrator, the psychologists, the specialists, the counselor, etc. This team should serve approximately 1,500 children. Thus, it isn't a counselor for every 300 kids, but a team of people for 1,500. This team must be multi-disciplinary. More may need to be known before establishing an arbitrary number.

There should be somebody around the school that knows the pupil and stays with him. Both the pupil and the parent should know that they can get help from this person at any time.

Computerized Instruction

Software is lacking for the hardware. We need clear ideas as to what a computer can do best, and then have programs to put into the computer.

At this time, instruction is not designed for computerization. The different kinds of terminal possibilities, conceptualized CAI, and software materials are in the early stages of development.

Some automation will continue.

Nobody in the school business knows enough empirically about what goes on in the classroom to conceptualize the software for the hardware.

It is probable that some insightful discoveries along the lines of computer-based instruction will precede anything very productive in the way of CAI.

Teacher education should be making more use of some of this technology than it is at the present time.

Any school district that is adequate can afford tape equipment.

ETV tape is more flexible and cheaper in accessing the students to the technology than in any other way.

The Area Educational Service District should have primary responsibility for experimental and clinical use and adaptation of ITV and ETV.

Special Education

Few authorities will agree with the incidence per capita for any handicap or disability.

Pupils needing special education facilities should be provided for within the local school to the extent that it is possible to do so. Separate and isolated buildings and centers should be avoided as much as possible.

Segregation is not the solution for many of the handicapped. They should be with normal students as much as possible.

The degree of hard-of-hearing deficiency just isn't that different from some other speech anomaly to divide your kids into deaf kids, hard-of-hearing kids, speech defective kids and non-verbalizing kids. The skills that the teacher has to have to deal with these kids are identical.

The crippled, the mildly handicapped, and the emotionally disturbed are taught by identical methodologies.

Try not to move the kids from their home base any more than necessary. They are more nearly like other kids than we normally think that they are.

The trend is away from segregation; it is to treat these kids as normal kids to the extent that it is possible to do so. Keep them in their local attendance centers to the extent possible.

One solution is to provide a two-hour class for the handicapped in the same building with all of the other children.

Correct assignment of a child to a special education facility is an extremely important decision. Diagnosis and assignment of handicapped pupils is not a rule of thumb exercise.

In one school district the incidence of incorrect diagnosis was wrong two out of five times. Even among sophisticated faculty members, recommendations on a kid as being mentally retarded will be fallacious two out of five times. The incidence of incorrect referral of emotionally disturbed will be way above this. (Report by one member of the consultant team.)

The system ought to provide for an order of clinical practice at the Ph.D. level and on a multi-disciplinary level.

Multi-disciplinary: used in a clinical sense, including those disciplines which apply to clinical practice; namely, speech development, speech pathology, audiology, psychology, and social work.

The AESD should provide for a concentration of special education programs.

Education Media

There are two different categories of media. One is professional library and professional media, and the other is instructional library and instructional media. Some materials cost fifty cents, and some $1,500.

The sparsity factor makes it necessary for the leadership and services in media to be provided by the area educational service district.

In the field of professional library and professional media, only the State Department of Education can serve this need. Example: in-service education sound films and tapes, these are very expensive, and can be loaned to the administrative districts. They have limited usage, but are very valuable. Only the State Department of Education can afford a comprehensive set of these materials in many states, or heavily populated areas of some states.

The State of South Dakota cannot afford six comprehensive media centers for a full blown professional services media and library. This should be provided through the State Department of Education to all sections of the state.

Universities do not serve the professional needs (educational media) of administrative leaders in their respective areas.

The universities could serve schools in their respective areas through their extension services.

Business Management

There are areas of business management to be performed at each level of the three echelon system:

State Level—Purchase of school busses and other major items.
  Safety regulations throughout the state, with particular reference to performance and equipment in transportation.
  Finance.
Intermediate Level—Advanced team system for business management.
  Primary concern for local school district operation.
  Establish bus routes to avoid duplication; computerize transportation routes.
  Provide the resources for efficient and economic business management.
  Data processing.
  Computerize business management functions providing detailed information for decision making at both the local and intermediate level.
  Cooperative purchasing of many items: paper stock, business machines, common foods.
  Programs and services as mandated or delegated by the state legislature.
Local Level—Business management primarily a local school district concern.
  Operation and implementation of business management programs.
  Business management must be close to the local school district where the education is taking place.
  The local people have an interest in and a concern for business management functions.
  Provide all pupils with access to food service programs.
  School buildings.
  Decision making should be as close to the local level as possible.
  Cooperative effort is most effective on non-critical issues and services.

Common agreement at the local level can make possible major financial savings through a regional level. For example, the Detroit City Schools and the Oakland County Schools agreed on a format for Digiteck sheets. This resulted in a savings of $9,000 a year to both Detroit and to Oakland County.

School administration is in a period of transition. In the past (and present) administrators feel comfortable and safe in going out and buying paper, pencils and school bussses, but when it comes to getting out into the school buildings to improve instruction, they feel just a little bit nervous. Yet, school administration is moving in this direction, with increasing attention being given to leadership for the improvement of the learning process.

Data Processing

The system should be conceived on two operational levels. One is the main frame and advanced systems team; the other consists of terminals located in the attendance centers and administrative offices and connected via telephone wires with remote access capabilities to the main frame.

The main frame and advanced system team would be a regional operation, and in some states it might be a state operation.

The terminal gear and the process applications would be a local school district operation.

The Size Factor

Units can be too big. There is a bill in the Michigan legislature that would break Detroit into 26 districts.

A district is too big when the board of education covers a constituency that has so many neighborhood interests that it simply cannot rationalize those interests in a reasonable way.

The optimum size for an administrative district is 25,000–40,000 pupils (one consultant, "I wish I really knew").

More children can be accommodated in a larger school district with decentralization of organization.

There exist radical differences among school districts of about the same size. The type of problems, the type of organization, the quality of education and many other factors can make a difference between systems of the same size.

Care must be taken in the utilization of size factors. You need to think of the community, the social structure, the kinds of communities within one given community.

When is "large," large enough? When you get past 25,000 pupils you begin to degenerate.

With a completely centralized structure, 25,000 pupils is large enough. If the structure is decentralized, the district can accommodate very satisfactorily many more children.

Question: How would you organize a 4–5 county area, 50 mile radius, and 14,000 pupils? *Answer:* One administrative district with one superintendent. There would be extensive delegation of function and responsibility to the heads of school attendance centers.

Louisville-Jefferson County, Kentucky, is breaking down their system into three areas. I think this is wrong. It should be one system. There should be fewer and fewer chiefs and more and more Indians.

There should be one administrative organization for a major area, such as a socio-economic area, with attendance centers and location of such centers determined by time/distance factors and program offering. Certain programs and services would be concentrated at some central location.

School districts can get too big. The people in Hawaii think you can get too big, and they are trying to break their one echelon system into a two echelon system. The people in New York and other large cities think they are too big.

There are a lot of "overhead" costs in the way we have broken down our pattern of school district organization into many districts, each serving a small number of pupils.

Educational leaders in four major school systems in the United States are recommending operational units of 20,000–30,000 kids.

We must not become so involved in size, or bigness, that we forget what happens down in the classroom.

There should be large administrative units with major responsibilities delegated to the local attendance unit.

AESD and Socio-Economic Areas

Road patterns will determine the number of high school centers in an economic area.

Education can no longer be separate from the governmental structure of the area of which it is a part, and it should be increasingly relating to it.

The configuration of state systems of schools won't be related directly to other governmental structures, but rather the program of the schools as you configurate them may reflect this. State lines will interfere with the influence of metropolitan areas, but the programs in the schools must reflect the influence of the labor market, even though that labor market is located in another state.

In order to get a complete range of services, rural South Dakotans will travel 60 or more miles.

Education is a part of the total governmental structure. The basic question is concerned with those points where the need and the evidence or such relationships impinges upon our conduct.

Parents will permit their children to go as far as they know the road.

Finance

Finance should be area in nature. The tax base for education should be the entire area, not just local school districts as it is at the present time. Schools should be financed from multiple sources. The source should be fluid and expansive to the needs.

South Dakota might go to seven area districts, each one of which would be the tax base for that area. This would equalize the tax load and the mileage rates.

It should be recognized that all educational costs are not going to be the same. Many programs and services will need (1) more pupils, and (2) more money.

Voluntary mergers will occur with the establishment of the area as the tax base, since the incentive of the tax islands will have disappeared.

As state aid increases, minimum levels of performance will apply.

It is possible to conceive of some things that are of regional concern, and ought to get regional tax attention. Also, it is possible to conceive of other things as being purely local concern, which should get local tax attention. Both should receive state aid attention. Regional taxation should support special education—its housing, its equipment and its operation: subject matter specialists; data processing; and other types of region-wide programs and services. The operation of K–12 programs is a matter of local concern.

Any plan for school district organization that you can dream up will find its determinate items in other than the tax base. Such things as geography and population criteria will make you do things that don't have anything to do with the tax base.

There are a lot of "overhead" costs in the way we have been breaking down our patterns of school district organization.

Time-Distance Factor

You should not have a high cost, highly-trained professional employee spending too much time on the highway.

People tend to want school buildings in the direction which they travel the most.

The time/distance factor is the most decisive factor in determining attendance centers.

The suggested travel time for elementary children is a maximum of 30–45 minutes in most areas.

The Sparsity Factor

The sparsity factor is a reality. You have to provide for it.

If you are going to have equitable education, it is going to take more services and more kinds of programs in some places than in others. For example, a very remote area with 300 pupils must be served with good educational opportunities for all children.

Apply the time/distance factor and do the best that you can from the standpoint of attendance centers.

Attendance centers and administrative districts are not one and the same thing.

School District Organization and Desegregation

If you provide all the programs and services that are needed, desegregation will not be an issue. Activities and experience are more significant and important than racial mix.

Desegregation *per se* is not related to school district organization.

The courts are not consistent nationally concerning desegregation.

The people in these schools want a different kind of educational program. They, through their own representatives, have a right to direct what those programs should be, to determine what they want. If they are members of a large school, then the school board, according to law, must treat everybody equally—personnel policies, curriculum, budgets, school book adoption, etc. This simply doesn't work. It doesn't meet the needs of these areas of the city. If you can avoid this, avoid it. The people in these areas should have something to say about what happens in their school rooms.

There are underprivileged children in rural areas and in urban centers. They should have the opportunity to be with and to associate with other children. They need a comprehensive kind of environment where they can learn what the real world is about, and what it is like.

If some way we could shift the schools into being places where kids learn rather than where something is dished out (the traditional concept), then they would become educated through this process, and the problems of segregation, desegregation (whites and blacks; Indians and whites; Spanish-American and American, etc.) would not be an issue, but rather each would be learning from the other.

Also, we must remember that in lots of places we do harm to kids because we get different kinds of cultures and backgrounds into the same place and then we give them experiences that might not hurt one of the groups but might do damage to the other.

The desegregation issue will be solved eventually with quality educational programs for all children, rather than by moving bodies around.

Different segments of the minority groups have not reached agreement among themselves.

Write the guidelines so that there will be no doors closed to anyone.

Suburbanization and School District Organization

Racial issues will tend to preserve suburbanization.

Suburban districts are a part of a total community. Essentially, they are one district.

The suburban districts tend to fragment the socio-economic patterns of a total community. It is ridiculous that within a radius of a few miles there are separate and distinct administrative districts that are basically and fundamentally one community.

Factors Affecting Change

Change in the status of the home and of the family is affecting change in education.

Lack of stability in home after home is bringing about change.

The impact of poverty is a change agent in society.

The increasing employment of mothers is affecting change in our society, and in education.

People going from rural to urban living are finding the adjustment difficult to make.

Urbanization and suburbanization is forcing us to think about the changing values held by the people.

The mobility of people forces change. In Memphis, we change from 5,000 to 6,000 addresses of pupils every 20 days.

Especially do we find an exodus of rural people into the more urban areas. Sometimes, these people just don't quite fit for a little while. There is an adjustment period that is different for them to make.

The affluent society has changed the peoples' sense of values.

Higher Education

Consideration should be given to combining community colleges with public education.

Community colleges should be under the area board of education, working on a cooperative basis with the Board of Regents.

Boards of Education

There should be only two levels of boards of education within any given area of the state. These would be the local board of education for the administrative district and the district board of education for the AESD.

Legislation for School District Organization

Some reorganization will take place with permissive and semi-permissive legislation for school district organization. But it will generally be too little too late.

There was general agreement that there should be some form of mandatory legislation.

Some General Recommendations for the Final Report

The final report of the Great Plains Project should contain a preamble, or a Bill of Rights in terms of children and education.

Recognize that the purpose of structure is to facilitate the learning process. This must be predicated upon the fact that a revolution is taking place in which there is a movement toward idea kind of learning, or concept type of learning, a sequencial K–12 type of learinng. This necessitates a very different role of the teacher, one in which we don't talk about sections and classroom units as we used to do.

Give consideration to the new trends in education—the non-graded school, the emphasis on ideas rather than subject matter, the changing role of the teacher, the findings of research for education, etc. Sometime in the near future we will not be slicing the educational program into subject matter fields. The Great Plains Project should give onsideration to the changing curriculum, and to the designing of an organizational structure that will not be out-of-date before you get it done.

The Project Report should join theory and practice at each of the three echelon levels.

Write the guidelines so that the school doors will be closed to no one.

An organizing center for the project should be the development of a structure which will provide stimulation for self-learning.

The report should be so written that legislators will not do what Congress has done and make administrators pull up the rose bush every week or so to see how the roots are doing. Sufficient time should be allowed so that when assessment is made, the reading will be a fair and a just one.

It needs to be said forcibly in your report that the programs and the services for this new education will demand new structures and new working relationships. The old will merely prolong what we have done wrong too long already.

A revolution is taking place in education. The structural organization for education must provide for a more active learning environment, with a new definition of the role and function of the teacher.

Concluding recommendations by Dr. Henry Cone, The Commission of the States, Denver, Colorado:

1. Boil down the detail which is a background for the general recommendations in the writing of the final report.

2. Recognize early in the report that changes in school district organization have been taking place, are taking place and will be taking place. The best that we can recommend will not be good enough because it is and will be a continuous proposition. Conditions that we think are great today, will be out-of-date in a very short period of time.
3. The decisions that are going to be made will be made by the legislatures. They will hinge around matters of finance. The State Department of Education should be encouraged to deal more directly with the legislatures on these points.
4. The report might well be written with the Legislative audience in mind.

CHAPTER 17

FINDINGS AND RECOMMENDATIONS REPORTED IN THE POSITION PAPERS

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The response to the "Invitation to Planning in Education," which was extended in each of the four states, was most gratifying. A total of 104 studies and reports were prepared and utilized in arriving at the guidelines proposed in the Project Report. Of this number, fifty-four were position papers developed in the areas of educational needs, demographic factors, curriculum and educational programs, educational services, organization and finance (See Table below). Sixty-five of the position papers and reports have been published in brief, annotated form for general distribution; all others were made available for committee study and analysis in mimeographed form.

The authors of the various papers reviewed the literature in their respective fields of specialization and assessed the research pertaining to structure and organization to provide the desired quantity and quality of programs. They interpreted the empirical judgment of knowledgeable leaders about the programs, and what was considered to be essential in structure and organization to adequately fulfill the purposes and objectives for which the programs had been developed. This report is a summary of the findings and recommendations as presented by the writers of the several position papers and related studies and reports.

TABLE 9.1
Reports and Publications Great Plains School District Organization Project

Legend	Number of Reports					
	Iowa	Missouri	Nebraska	South Dakota	Project Office	Total
Position papers:						
Educational needs	1				2	3
Demographic reports	1	1		2	1	5
Curriculum & Ed. Programs	1	2	12		7	22
Ed. Services	1		2	2	4	9
Organization & finance		1	1	3	6	11
Miscellaneous		1		1	2	4
Total	4	5	15	8	22	54
Related reports and studies	8	4	1	4	33	50
Grand Total	12	9	16	12	55	104

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[1] Prepared with the assistance of Dr. Ellis G. Hanson, Project Director for Iowa.

Factors Effecting Change

American society can best be described today and in years to come as fluid and rapidly changing. The explosion of knowledge and the consequent technological developments are exercising a profound influence on every facet of man's existence. In addition, the quest for full citizenship rights by all citizens is resulting in social upheavals in every part of the nation, including the Great Plains States. The rights and responsibilities of the individual in relation to the total society are undergoing dramatic assessment and reevaluation.

Within this general societal change, several distinct trends that have relevance for educational planners are identifiable in the Midwest. The most significant of these social and economic adjustments in Iowa, Missouri, Nebraska, and South Dakota are as follows:

1. The continued implementation of technology in the agricultural industry is resulting in:
    a. consolidation of family farms,
    b. acutely declining rural population,
    c. declining population in villages and small cities,
    d. the expansion of technically oriented ag-related industries and services, and
    e. a significant increase in the labor force in service-related occupations.
2. A population decline exists in most communities under 2,500, an apparent stability in most communities of 2,500, and a pattern of growth in communities above 2,500.
3. Ninety percent of all growth within the four states during the past decade has occurred within 32 Midwest cities. However, central city populations are declining and suburban populations are mushrooming.
4. Urban unrest has been created by inadequate housing, unemployment, poverty, lack of opportunity to exercise citizenship, difficulties encountered in adjustment to urban living, in many instances segregated education resulting from adherence to the neighborhood school concept, and the desire for local determination of educational policy within the central city school system.
5. There is considerable overlapping of many governmental services.
6. There has been a substantial outmigration of the highly trained 18–45 year age segment from the four states to other parts of the country.
7. Birth rates and growth rates are substantially below national rates.

One significant characteristic has prevailed in the patterns of growth that have characterized community structure and organization, and which has contributed directly to the growth or decline of centers of social and economic activity over the past two centuries. This is the approximate one hour travel time to and from the center of the socioeconomic area. The principal elements contributing to the constancy of the one hour factor and the ever expanding distance have been the following:

1. The general acceptance by the people of a maximum of one hour travel time in relation to their respective needs. Small and large trading centers

have been developed or have deteriorated on the basis of this criterion.
2. The number of people to be served.
3. The spatial distance to be covered.
4. The speed of transportation of the period, and within the area served.
5. The time allotment for the movement of goods and services.
6. The technology man has created to facilitate living.

Throughout the history of our country, the one hour travel time factor has remained as a constant, but the distance factor has undergone remarkable change as a result of changes in transportation and communication. Communities, or sections of communities, grow and expand on the basis of this one primary characteristic; and they deteriorate and disappear for the same reasons. This characteristic has been a major determinant in school district organization over the years, and will continue to be a significant influence in the future.

The fundamental necessity for a successful life in a rapidly changing society is the ability to be flexible—to adapt to change. Individual flexibility is a manifestation in part of one's ability to think, that is, to compare, relate, and associate confronting situations in a rational, logical, and analytical manner. Organizational flexibility is manifested, in part, by the ability of existing institutions within society to adapt and adjust to altering needs and demands imposed by the society. Future designs for educational organization must possess the capacity for both individual and organizational flexibility if education is to serve as a vehicle for sustaining and improving the society. This can be realized best through the provision of high quality comprehensive educational programs for all youth and adults based upon identified needs and conducted by efficiently organized and economically operated educational units.

Needs

The basis of all educational planning must be predicated upon an assessment of needs. The organization of education with a state system is not an end in and of itself. An appropriate structural organization enables a state to meet the identified educational needs by providing comprehensive educational programs and services at a high level of quality with optimum efficiency and economy.

Most educational needs identified by federal, state and local governments, by society, labor, business and industry, and by the individual student relate to one or more of the following:

1. the acquisition of knowledge and understandings,
2. the development of skills,
3. the development of individual and social value systems,
4. the development of capacities for individual and group fulfilment,
5. the ability to theorize, to conceptualize, and to relate theory to reality.
6. the maintainance of good mental and physical health, and the correction and improvement of physical and mental defects, and
7. the development of individual potential to its highest level.

Education's main purpose is to prepare youth and adults for the society in which they live—to prepare them for satisfying, contributing, and participating membership in that society.

Comprehensive Programs and Services

Comprehensive educational opportunities for all students are made possible through provision of programs and services to meet the educational needs identified at each level within the state school system. A total of twenty-two papers pertaining to the curriculum and various program areas were prepared by representative leaders in each of the four states and through the Project Office. Seven facets were consistently emphasized by these writers as basically important for the achievement of acceptable and desired results:

1. There is a need to clarify and define the goals for each of the respective areas of the curriculum, and for the total curriculum.
2. There exists a body of content material within each of the several areas of the curriculum which is important, which is in the process of change, and which must be related meaningfully to the individual student.
3. A breadth of program offering is essential if the basic concepts, the objectives of the program area, and the adaptation of the offering to individualized needs, and in program adaptation to changing needs of students and of society.
4. Appropriate staffing with well trained and experienced teachers is a primary factor of quality in program development and in program adaptation to individualized needs and changing needs of students and of society.
5. Each writer emphasized the essential requirement of adequate equipment and facilities for the satisfactory achievement of the educational objectives as related to their respective program areas.
6. Some writers placed stress upon the changing curriculum, the changing methodology, the recent developments in child learning theories and in program adaptation to these changing developments, the increased emphasis upon individualized instruction, and the increasing availability of new and improved tools for learning.
7. Some writers placed stress on a change from compartmentalized, highly structured subject matter areas to an interdisciplinary and interrelated approach for more meaningful learning situations.

Maxey and Thomas pointed out that the smaller the school, the greater the chance that the teacher will: (1) teach in two or more subject areas; (2) have a greater number of subject preparations; (3) be more poorly prepared; (4) receive less salary; and (5) have a much larger pupil load. Also, they found that schools with a total enrollment of 1,500 pupils or more were required in order to secure acceptable benefit of teacher preparation, and for the availability of more specialized personnel.

In another section of the same report Maxey and Thomas stated that on a computer analysis of the curriculum offering in all Iowa High Schools the average number of curriculum offerings in senior high schools was 69.8 in school districts with an enrollment of 500–749; 77.7 in schools with an enrollment of 1,500–1,999; and 100.7 in schools with an enrollment of 3,000 or more. The curriculum offerings in junior high schools of similar district enrollments were 34.0, 38.0 and 56.8 respectively. Significant differences favoring the larger districts were found in the number of curriculum offerings by subject matter areas. These included foreign language, fine arts, and all areas of vocational education. Maxey and Thomas summarized their findings as follows:

1. The larger the school district the more course offerings that are available to the pupils.
2. As enrollments increase, the more different course offerings are available in the areas of foreign language, business education, vocational education, and technical education.
3. Many course offerings in the larger schools are not found in the small enrollment schools.
4. Larger schools tend to combine, to coordinate and to strengthen offerings in ways that may not be possible in the smaller schools.

TABLE 9.2
Mean Frequency Distribution of Selected Areas of the Curriculum in Iowa By Size of District

Legend	District enrollment 500–749	1500–1999	3,000 & above
No. Senior H. S. curriculum offerings	69.8	77.7	100.7
No. Junior H. S. curriculum offerings	34.0	38.0	56.8
No. Senior H. S. curriculum offerings:			
Communication skills	7.1	6.6	8.2
Fine arts	4.9	4.5	7.3
Foreign language	2.4	3.6	8.4
Mathematics	6.5	5.7	6.6
Science	5.1	4.4	4.8
Social Studies	5.8	5.4	5.1
Agriculture	1.0	1.0	1.2
Homemaking	3.1	3.2	2.8
Industrial education	3.6	3.0	3.5
Business education	3.3	3.7	7.9
Vocational education	2.7	3.0	4.1
Marketing	—	—	1.0
Special education	—	1.8	1.0
Technical education	—	—	6.8

Source: Maxey, E. James and Thomas, Donald R., "Selected Comparisons of Teacher and Curriculum Characteristics Related to Educational Innovation for the Great Plains." (Prepared at the Iowa Educational Information Center, The University of Iowa, Iowa City, Iowa. Prepared for the Great Plains School District Organization Project. Mimeographed. 1967.) 124 pages.

The President's Panel on Vocational Education and the President's Committee on Youth Employment in 1963 placed great stress upon the need for programs of vocational training. Subsequent national reviews and reports have reemphasized the urgency of this need to be met throughout the country. Major increases in the allotment of federal money for this purpose have been made during the past five years. Shoemaker, in his position paper on vocational education, stressed the importance of providing comprehensive educational opportunities for all youth and adults at both the secondary and post high school levels. He supported the position that an adequate pupil and financial base is to be found in an area vocational school serving multi-administrative districts, or one which serves multi-secondary school attendance centers in one administrative district. In general, a pupil enrollment base, K-12, of 14,000 to 42,000 pupils is required to make possible efficiently organized and economically operated comprehensive vocational educational opportunities.

Turner reported that a district would need 20,000 to 25,000 students in order to meet all conditions for the curriculum in a satisfactory manner. After analyzing curriculum needs and programs of instruction he recommended that secondary school attendance centers should have a pupil enrollment from 500 to 1,500 pupils. The findings and recommendations by Maxey, Thomas, and Turner appear to be consistent with the projection of pupil enrollments to meet the identified needs as interpreted by the writers of the several position papers both in the content fields and in the newer concepts for child learning and development.

The several writers emphasized the need for comprehensive educational opportunities for all students. It was indicated throughout the papers that the availability of comprehensive educational opportunities is enhanced by the following:

1. A balanced, flexible, and articulated program, preschool through grade 12.
2. An elementary school curriculum which includes:
    a. A language arts program, with emphasis on oral and written expression; listening; spelling; handwriting; literature; a second language.
    b. A social studies program that enables the child to understand the historical developments of our nation, its form of government, our economic system, and the relationship of our nation to others in the world.
    c. A science program that enables a child to know and appreciate science; to perform simple experiments; to interpret, record, and report accurately; to distinguish between truth and superstition; and to associate and apply science to daily living.
    d. An arithmetic program with emphasis on the usefulness of arithmetic and its practical and scientific applications.
    e. A health, physical education, and recreation program.
    f. A fine arts program in which the child learns to express himself through music, art, and language.

3. A secondary school curriculum with a broad program of studies and activities including:
    - English, language arts, and literature
    - Two or more foreign languages
    - Vocational Education:
        - Agriculture
        - Business education
        - Homemaking
        - Distributive education
        - Trade and industrial education
    - Physical education and health
    - Drama and speech
    - Mathematics
    - Sciences
    - Art
    - Creative writing
    - Music
    - Humanities
4. The provisions of special programs and services which include:
    a. A school media program (Instructional Resource Center).
    b. Pupil personnel services including:
        - Guidance
        - Placement
        - Psychological services
        - Learning diagnosticians
        - Health services
        - Attendance personnel
    c. Special education programs for at least the following areas:
        - Gifted
        - Mentally retarded
        - Visually impaired
        - Acoustically handicapped
        - Cerebral dysfunctions
        - Orthopedic handicaps and special health problems
        - Speech and language impairment
        - Emotionally disturbed
        - Delinquent
    d. Pupil transportation services.
    e. School lunch services including:
        - Breakfast program
        - Lunch program
        - Milk program
        - Special assistance programs to needy
        - Non-food assistance programs
        - Government commodity program
    f. Adult and Continuing education programs.

Aslin, in summarizing a defensible minimum for a comprehensive educational program, reported the need for a curriculum offering of the following units:

Mathematics	5–6	Social studies	6
Foreign language	4	Communication skills	6–7
Business education	5–6	Health and physical education	2
Industrial arts	2–3	Art and music	5
Science	5	Vocational trade areas	4 or more
Home economics	2		

Total number of units—in excess of 60.

It must be realized, of course, that this system of counting units may be antiquated within the near future. Significant developments and reported remarkable progress is being made with non-graded elementary and secondary schools, non-sectioned classes, and individualized instruction with the use of the computer and with other kinds of hardware and related tools for learning and instruction. However, it appears at this time that the school district organizational requirements to facilitate one or the other are not too dissimilar, and that the guidelines for the one are probably appropriate for the other.

These requirements appear to be somewhat less than the desired course offering as recommended by writers within specialized areas of the curriculum. However, Aslin provides for these needs by his statement that the 60-unit course offering is a "defensible minimum for a comprehensive educational program."

Quality

Quality is one of the more intangible aspects to describe in education. Discussing quality is attempting to describe what happens to an individual in the educative process, what happens to him as a result of attending school and participating in school-directed activities.

According to Schwartz quality education should produce individuals who:

1. utilize talents and abilities to the maximum of their potential,
2. seek to continue education throughout life,
3. are able to participate actively and positively in the world of work,
4. can engage in problem-solving at abstract and concrete levels, and
5. are developing positive patterns of values which sustain them as individuals and as members of society.

Schwartz identified ten keys to a quality educational program:

1. Professional staff with high qualifications are employed and are given the opportunity to perform the duties for which they are qualified.
2. Educational programs are designed to maximize the educational attainment of all the people in the community.
3. Specialized personnel and instructional services are available for all students.
4. Modern instructional media are available to all teachers and provisions for their effective and efficient use are assured.
5. Experimentation, innovation, and the process of change are readily apparent.
6. Systematic and organized evaluation and research are conducted continuously and the findings are used to improve programs.
7. Supporting services and personnel are available to maintain an effective and efficient system.
8. Physical facilities conducive to a stimulating educational environment are available.
9. Community support and understanding are readily evident.
10. Adequate financial support to provide for the essential ingredients of quality education is made available.

Schwartz held that the final assessment of quality is in terms of the performance of the finished product of the school, whether it be the dropout or the graduate. The measurement of quality is not in terms of buildings, motion picture projectors, teacher aides, or homeroom coffees. While there appears to be substantial evidence that the level of quality of a school or district is directly related to the extent to which the conditions described earlier are available, the burden of proof pertaining to the level of quality is found in performance measures. It remains for the professional personnel to develop imaginative approaches to evaluate the quality of the school system.

Efficiency—Economy

Efficiency in educational organization relates to the optimum utilization of all human and material resources in support of the comprehensive program. Efficiency is enhanced by having an adequate number of pupils to insure the employment and full-time utilization of well-trained teachers, administrators, supervisors, and special personnel.

Economy in the conduct of the state system of education to insure optimum utilization of the tax dollar requires that:

1. all areas of the state to be in a district maintaining at least a preschool through twelfth grade program,
2. a large geographic area for the taxing base to eliminate inequities,
3. an adequate pupil population to guarantee reasonable per pupil costs for comparable programs and services, and
4. state contributions to administrative district operations which approach or exceed 30-40 percent of basic educational costs.

Whitt found that an optimum district for efficiency and economy in business administration necessitated an administrative district servicing educational programs for 10,000 to 30,000 pupils, and an intermediate administrative unit servicing 30,000 to 50,000 pupils. He also indicated that inter-area cooperative or regional units were essential for some kinds of services, such as data processing, school plant planning and building programs, and for research and development. Purdy reported a probable minimum of 60,000 to 100,000 pupil base for efficient and economical utilization of electronic data processing. Robinson recommended an intermediate unit media organization to make possible the essential breadth and scope for school media programs. In a study of school building costs in Missouri, Englehart found that per pupil costs ranged from $1,540 in buildings housing 609 pupils to $2,800 for 159 pupils. Similarly, expenditures for plant maintenance and operation costs increased from $41 per pupil in school districts of 10,000 to 20,000 pupils, to $56 per pupil in districts with an enrollment of less than 500. In a very complete study of Iowa schools, Manatt reported that per pupil costs for central administration increased from about $10 per pupil in large districts to $80–$100 per pupil in small districts. He reported that if administrative services from the central office are considered to be important, then district enrollments must be 3,000 or more for acceptable efficiency and economy of operation.

Manatt reported that the unit costs per pupil varied from $400 in high schools with an enrollment of 1,500 to $700 in 100 enrollment schools. In a study of per pupil administrative costs in three of the four states, he found an average of $8.08 per pupil in the ten largest districts in Missouri, $11.20 in Iowa and $13.71 in South Dakota. At the other end of the scale the mean per pupil costs for administrative purposes in the ten smallest districts was $77.85 in Missouri, $43.80 in Iowa, and $31.71 in South Dakota. The range was from $3.51 to a high of $100.62 per pupil. His summarized findings include the following:

1. As district enrollments drop, per pupil costs for central administration, excluding costs of administering attendance units, increase rapidly.
2. Large districts spend more per pupil for special services than for supervision, and a smaller amount for general administration.
3. Median sized districts spend more dollars for general administration than for special services or educational supervisors.
4. Smaller districts of each state spend almost nothing for special services; A portion of the administrator's time is devoted to teaching.
5. Per capita expenditures for both general administration and total central administration vary inversely with district enrollment.
6. Small and median-sized districts do not have the services of educational supervisors or personnel assigned to special services.
7. Districts with 10,000 or more students spend more money for supervision and special services than for general administration.
8. Districts of median and smaller size schools spend most of their total administrative budget on superintendents, assistants, and secretaries.
9. Only the larger districts included in the study offered a broad range of administrative services.

There is a high degree of consistency in all of the position papers, whether they are concerned with acceptable program and service functions or with efficiency and economy of operation. The findings strongly support administrative districts of 3,000–3,500 pupils or more for adequate, efficient, and economical program offering and service functions in selected areas. This excludes vocational education and many areas of special education. Pupil enrollments of 15,000–20,000 or more are essential in the support of comprehensive educational opportunities for all students. In addition, there was supportive evidence for area educational service agencies serving 30,000–50,000 or more students if many essential programs and services are to be provided at an acceptable level of quality, with efficiency of organization and economy of operation.

Organization

When viewing optimum organizational patterns for a state system of education, the closely coordinated structural levels under the direction of one state board appears most defensible for the Midwest. Administrative districts should possess the capabilities of providing the programs and services recommended earlier. Enlarged and strengthened multi-county area education service agencies could then provide a wide array of specialized programs and services not feasible within administrative districts. The multi-county unit should be developed to coordinate all area education functions—those programs and services rendered to administrative districts as well as post high school programs and services on an area or multi-district basis.

The state education agencies must provide new and expanding leadership functions in order to insure education as a vehicle for sustaining and improving society and to perform its role and function as the officially established state agency for education. Coordination and performance of legislatively delegated regulatory functions will continue to be a vital responsibility of state education agencies. However, the importance of this role will diminish with the expanding leadership function. The state education agency should provide for the direction of all educational activities at the elementary and secondary levels, the post high school level in vocational technical schools and community colleges and in the area of vocational rehabilitation services.

It appears at this time that the most satisfactory means of achieving optimum organizational structure will be through some form of legislative mandate which prescribes a total state system incorporating all geographic areas of the state into a network of administrative districts and area education service agencies (See Summers, "Effective Legislation for School District Organization").

Urban Problems

Levine and Havighurst identified six major problems and imperatives associated with metropolitan development:

1. Fragmentation in the structure of local government.
2. The socioeconomic stratification and racial segregation.
3. Inadequate social environments for middle-income students in single class sections of the city and the suburbs.
4. Weakening of the unifying norms which facilitate productive interaction among citizens in the metropolitan areas.
5. Physical deterioration and the crisis in public finance in part of the metropolitan area.
6. The need for cooperation to solve the major problems of the metropolitan area.

In accordance with the need to conduct certain educational functions on a metropolitan area-wide basis in order to solve the above critical emerging problems of a metropolitan society, it was recommended that officially designated metropolitan intermediate districts be formed which should have the authority to perform all functions relevant to a metropolitan area. Specifically identified were the following responsibilities:

1. to represent and to act on behalf of member districts on all area wide commissions and organizations,
2. to raise a portion of revenues for public education,
3. to initiate and to implement programs to reduce social-class stratification,

4. to equalize professional salaries among the several districts,
5. to provide specialized personnel for research and development,
6. to develop and to implement projects for the improvement of human and intergroup relations, and
7. to collect area wide educational statistics, to develop improved measures to assess the quality of the schools, and to assess the educational effort.

Challenge of Change

On the educational scene today are many experimental programs, practices, and innovative activities. Many of these have not reached the perfection that would warrant wide implementation within a total state education system. However, many of these will find their way into general acceptance as their value and usefulness is tested and proven in practice. The organization must be capable of adapting and adjusting to these potentially imminent changes, six of which need to be given serious consideration:

1. There is increasing evidence that formal education for all three and four year old children may become an integral part of elementary education programs.
2. Nationally, there is increasing acceptance of expanding education for all students into the 13th and 14th years.
3. With the acceptance of grades 13 and 14 into the public educational organization, a new and promising 6–4–4 organizational pattern is emerging.
4. The continued development and refinement of technology is greatly increasing the potential for significant advancement in individualized programming and instruction. The results of many such experimental programs suggest that students learn more, learn faster, and are more highly motivated when utilizing technological equipment (See Purdy, "Electronic Data Processing in Education;" Purdy, "Emerging Concepts and School District Organization;" and Gilchrist, "New Concepts on the Educational Horizon").
5. Recent findings in research relating to the learning processes are having a profound effect upon instructional techniques, upon the organization of curriculum materials, and upon the age grade placement of learning experiences.
6. Some research presently underway suggests individualized self-realization instruction in smaller sized K-12 attendance centers within relatively large administrative districts in densely populated areas.

These are all promising educational practices in the process of being tested and proven. Whatever the structure for education it should possess the capacity for adjustment to imminent changes, whether those identified above or those that may emerge in the near future.

Throughout history educational organization has been a dynamic, ever-changing element within our social system. The rapidity of change in all areas of human endeavor necessitates that educational organization be not only responsive to change, but a part of the change process itself.

Summary Statement

Fifty-five position papers were prepared by specialists in various program and service areas. Emphasis was placed on an analysis of available research and a review of the literature pertaining to essentials to be provided through the educational organization for the satisfactory achievement and fulfillment of the goals and objectives of the several programs and services. Selected findings and recommendations include the following:

1. Demographic change is directly affecting conditions to be met by the educational structure. With sparsely populated areas becoming more sparcely populated and with the continuing urbanization of the nation, the state school system must have great capacity for flexibility and adaptability to rapidly changing conditions in order to provide equitable educational opportunities for all youth wherever they may live in the state.
2. Needs to be met by the public school system are being defined at six different levels, including the local, state, and national governmental levels; and, by society in general, by business and industry, and by the individual pupil enrolled in the public school system. The structural organization for education must be such that programs and services can be provided to meet all identified needs in an efficient manner and with optimum economy in the utilization of the local, state, and national educational dollar.
3. The impact of scientific and technological progress and the greatly expanding world or work demanding unprecedented possession of intellectual and skilled abilities for successful and continuing employment necessitates the availability of comprehensive educational programs and services for all youth and adults.
4. Comprehensive vocational education training programs at the eleventh and twelfth grades and at the post high school level, and technical education at the post high school level, should be available for all youth and adults.
5. Breadth of program offerings (comprehensive programs) are inadequate and uneconomically provided to meet today's educational needs in secondary schools enrolling less than 100 in the twelfth grade.
6. Multi-high school attendance centers are essential to provide the necessary pupil base to make possible efficient and economically operated comprehensive vocational programs.
7. Quality in education will be determined in terms of the performance of the finished product of the school, whether it be the dropout or the graduate.
8. The findings of the several papers strongly support administrative districts of 3,500 pupils or more, and some form of an intermediate

echelon, such as an area educational service agency serving 35,000 to 100,000 or more pupils.

9. Multi-county administrative districts and multi-county area service agencies may be essential in the future to provide efficiently organized and economically operated programs and services essential for youth and adults in todays scientific and technologically orientated world of work.
10. New and innovative structural organizations are essential for both the sparsely populated areas and for the growing metropolitan areas.
11. The historical evidence concerning school district organization indicates that a state school system meeting todays needs today may best be achieved through some form of legislative mandate.

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APPENDIX 1

PURPOSES[1]

GREAT PLAINS SCHOOL DISTRICT ORGANIZATION PROJECT

1. To improve the State Departments of Education (Title V, and the primary basis for the entire grant)
2. To assist in resolving some of the major problems of State Departments of Education, including, but not limited to the following:
   - a. Bringing about an increased **awareness** on the part of professional and lay groups of the **need** for adequate school district organization.
   - b. Analyzing and clarifying the role of professional and lay organizations in school district organization.
   - c. Developing guidelines to be used to implement programs.
     - (1) for school district organization.
     - (2) as a part of developed state plans.
   - d. Providing comprehensive programs of quality education to meet the needs of all youth in all parts of the state.
   - e. Clarifying the role, function, and need for intermediate districts.
   - f. Planning for adequate and appropriate follow-up services to those districts which have been reorganized.
   - g. Developing an awareness within each state of the relationships between tax structure and rates and school district organization.
   - h. Providing data, information, understandings, and insights essential for the introduction and passage of adequate legislation for school district organization.
   - i. Pooling the resources of the several states in making a joint attack on a common problem.

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[1] Adapted from "Attached Sheet No. 1" *Application for Grant to Strengthen State Departments of Education Under the Elementary and Secondary Education Act of 1965*, Title V, Section 505, P.L. 89-10, Special Project Grant entitled "Brief description of major problems of State Departments of Education which this project has promise of solving or services it proposes to develop."

APPENDIX 2

SUGGESTED ACTIVITIES[1]

GREAT PLAINS SCHOOL DISTRICT ORGANIZATION PROJECT

1. Identification, analysis, and interpretation of available research pertaining to satisfactory administrative units and school centers.
2. Identification, analysis, and interpretation of developmental activities in the several states pertaining to a school district organization which will provide educational programs of quality or excellence to meet the needs of our time with efficiency and economy.
3. The dissemination of information (multi-media) on:
    a. Characteristics of an adequately organized district.
    b. Characteristics of an adequate comprehensive secondary school.
    c. Procedures for local study of reorganization problems.
    d. Guidelines for organization and administration of intermediate districts.
    e. Follow-up activities for school systems which have recently been organized.
4. The development of a systematic program to provide for the follow-up of newly organized school districts. Emphasis is to be placed on:
    a. Various media for communication and understanding of the problems and issues under study.
    b. An adequate plan for consultative services.
    c. Increased leadership activities in the several state education agencies.
5. The development of state and regional institutes and conferences for the purpose of (1) providing information and (2) facilitating adequate communication and exchange of views on ways and means to strengthen state education agency leadership in school district organization with an appropriate involvement of inter-departmental, legislative, professional, and lay personnel.
6. The strengthening of field service programs in State Departments of Education.
7. The rendering of assistance to local educational leaders in the development of exemplary intermediate districts.

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[1] Adapted from "Attached Sheet No. II" *Application for Grant to Strengthen State Departments of Education Under the Elementary and Secondary Education Act of 1965*, Title V, Section 505, P.L. 89-10, Special Project Grant entitled "Description of activities which are proposed to be undertaken and methods and arrangements for working toward project objectives set forth in Section A—item 11."